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REPORT OF THE SECRETARY OF THE SMITHSONIAN INSTITUTION

AND

FINANCIAL REPORT OF THE EXECUTIVE COMMITTEE OF THE BOARD OF REGENTS

1942

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Division of Fishes,
U. S. National Museum

SMITHSONIAN INSTITUTION
WASHINGTON, D. C.

REPORT OF THE SECRETARY OF THE SMITHSONIAN INSTITUTION

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Division of Fishes,
U. S. National Museum

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FINANCIAL REPORT OF THE EXECUTIVE COMMITTEE OF THE BOARD OF REGENTS

FOR THE

YEAR ENDED JUNE 30

1942

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CONTENTS

	Page
List of officials	1
The Smithsonian and the war	7
Ending of Wright-Smithsonian controversy	10
Summary of the year's activities of the branches of the Institution	10
The establishment	15
The Board of Regents	16
Finances	16
Matters of general interest	17
Smithsonian radio program	17
Walter Rathbone Bacon scholarship	18
Eleventh Arthur lecture	19
Explorations and field work	20
Publications	21
Library	22
Appendix 1. Report on the United States National Museum	24
2. Report on the National Gallery of Art	36
3. Report on the National Collection of Fine Arts	46
4. Report on the Freer Gallery of Art	51
5. Report on the Bureau of American Ethnology	56
6. Report on the International Exchange Service	68
7. Report on the National Zoological Park	77
8. Report on the Astrophysical Observatory	86
9. Report on the Division of Radiation and Organisms	90
10. Report on the library	93
11. Report on publications	98
Report of the executive committee of the Board of Regents	106

THE SMITHSONIAN INSTITUTION

June 30, 1942

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Chancellor.—HARLAN F. STONE, Chief Justice of the United States.

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FRANK C. WALKER, Postmaster General.
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HAROLD L. ICKES, Secretary of the Interior.
CLAUDE R. WICKARD, Secretary of Agriculture.
JESSE H. JONES, Secretary of Commerce.
FRANCES PERKINS, Secretary of Labor.

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Personnel officer.—HELEN A. OLMSTED.

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Keeper ex officio.—CHARLES G. ABBOT.

Assistant Secretary (in charge).—ALEXANDER WETMORE.

Associate Director.—JOHN E. GRAF.

SCIENTIFIC STAFF

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Frank M. Setzler, head curator; A. J. Andrews, chief preparator.

Division of Ethnology: H. W. Krieger, curator; J. E. Weckler, Jr., associate curator; Arthur P. Rice, collaborator.

Section of Ceramics: Samuel W. Woodhouse, collaborator.

Division of Archeology: Neil M. Judd, curator; Waldo R. Wedel, associate curator; R. G. Paine, senior scientific aid; J. Townsend Russell, honorary assistant curator of Old World archeology.

Division of Physical Anthropology: T. Dale Stewart, curator; M. T. Newman, associate curator.

Collaborator in anthropology: George Grant MacCurdy. Associate in anthropology: Aleš Hrdlička.

DEPARTMENT OF BIOLOGY:

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Division of Mammals: Remington Kellogg, curator; D. H. Johnson, associate curator; H. Harold Shamel, senior scientific aid; A. Brazier Howell, collaborator; Gerrit S. Miller, Jr., associate.

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Division of Reptiles and Batrachians: Leonhard Stejneger, curator; Doris M. Cochran, associate curator.

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Division of Insects: L. O. Howard, honorary curator; Edward A. Chapin, curator; R. E. Blackwelder, associate curator.

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Section of Myriapoda: O. F. Cook, custodian.

Section of Diptera: Charles T. Greene, assistant custodian.

Section of Coleoptera: L. L. Buchanan, specialist for Casey collection.

Section of Lepidoptera: J. T. Barnes, collaborator.

Section of Forest Tree Beetles: A. D. Hopkins, custodian.

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Division of Mollusks: Paul Bartsch, curator; Harald A. Rehder, associate curator; Joseph P. E. Morrison, senior scientific aid.

Section of Helminthological Collections: Benjamin Schwartz, collaborator.

Division of Echinoderms: Austin H. Clark, curator.

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Section of Grasses; Agnes Chase, custodian.

Section of Cryptogamic Collections; O. F. Cook, assistant curator.

Section of Higher Algae; W. T. Swingle, custodian.

Section of Lower Fungi: D. G. Fairchild, custodian.

Section of Diatoms: Paul S. Conger, custodian.

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Associate in Marine Sediments: T. Wayland Vaughan.

Associate in botany: Henri Pittier.

Collaborator in Zoology: Robert Sterling Clark.

Collaborators in Biology: A. K. Fisher, David C. Graham.

DEPARTMENT OF GEOLOGY:

R. S. Bassler, head curator; Jessie G. Beach, aid.

Division of Mineralogy and Petrology: W. F. Foshag, curator; E. P. Henderson, associate curator: B. O. Reberholt, senior scientific aid; Frank J. Hess, custodian of rare metals and rare earths.

Division of Invertebrate Paleontology and Paleobotany: Charles E. Resser, curator; Gustav A. Cooper associate curator; Marion F. Willoughby, senior scientific aid.

Section of Invertebrate Paleontology: T. W. Stanton, custodian of Mesozoic collection; Paul Bartsch, curator of Cenozoic collection.

Division of Vertebrate Paleontology: Charles W. Gilmore, curator; C. Lewis Gazin, associate curator; Norman H. Boss, chief preparator.

Associates in Mineralogy: W. T. Schaller, S. H. Perry.

Associate in Paleontology; E. O. Ulrich.

Associate in Petrology: Whitman Cross.

DEPARTMENT OF ENGINEERING AND INDUSTRIES:

Carl W. Mitman, head curator.

Division of Engineering: Frank A. Taylor, curator.

Section of Transportation and Civil Engineering: Frank A. Taylor, in charge.

Section of Aeronautics: Paul E. Garber, associate curator.

Section of Mechanical Engineering: Frank A. Taylor, in charge.

Section of Electrical Engineering and Communications: Frank A. Taylor, in charge.

Section of Mining and Metallurgical Engineering: Carl W. Mitman, in charge.

Section of Physical Sciences and Measurement: Frank A. Taylor, in charge.

Section of Tools: Frank A. Taylor, in charge.

Division of Crafts and Industries: Frederick L. Lewton, curator; Elizabeth W. Rosson, senior scientific aid.

Section of Textiles: Frederick L. Lewton, in charge.

Section of Woods and Wood Technology: William N. Watkins, associate curator.

Section of Chemical Industries: Wallace E. Duncan, assistant curator.

Section of Agricultural Industries: Frederick L. Lewton, in charge.

Division of Medicine and Public Health: Charles Whitebread, associate curator.

Division of Graphic Arts: R. P. Tolman, curator.

Section of Photography: A. J. Olmsted, associate curator.

DIVISION OF HISTORY: T. T. Belote, curator; Charles Carey, assistant curator; Catherine L. Manning, philatelist.

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Assistant chief of correspondence and documents.—L. E. COMMERFORD.

Superintendent of buildings and labor.—R. H. TREMBLY.

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NATIONAL GALLERY OF ART

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THE SECRETARY OF THE TREASURY.
THE SECRETARY OF THE SMITHSONIAN INSTITUTION.
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Senior archeologist.—FRANK H. H. ROBERTS, Jr.
Senior anthropologist.—JULIAN H. STEWARD.
Associate anthropologist.—W. N. FENTON.
Editor.—M. HELEN PALMER.
Librarian.—MIRIAM B. KETCHUM.
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NATIONAL ZOOLOGICAL PARK

Director.—WILLIAM M. MANN.
Assistant Director.—ERNEST P. WALKER.

ASTROPHYSICAL OBSERVATORY

DIVISION OF SOLAR AND STELLAR RADIATION: Charles G. Abbot, director; Loyal B. Aldrich, assistant director; William H. Hoover, senior astrophysicist.

DIVISION OF RADIATION AND ORGANISMS: Charles G. Abbot, director; Earl S. Johnston, assistant director; Edward D. McAlister, senior physicist; Leland B. Clark, senior mechanical engineer; Robert L. Weintraub, junior biochemist.

REPORT OF THE SECRETARY OF THE SMITHSONIAN INSTITUTION

C. G. ABBOT

FOR THE YEAR ENDED JUNE 30, 1942

To the Board of Regents of the Smithsonian Institution.

GENTLEMEN: I have the honor to submit herewith my report showing the activities and condition of the Smithsonian Institution and the Government bureaus under its administrative charge during the fiscal year ended June 30, 1942. The first 23 pages contain a summary account of the affairs of the Institution, and appendixes 1 to 11 give more detailed reports of the operations of the National Museum, the National Gallery of Art, the National Collection of Fine Arts, the Freer Gallery of Art, the Bureau of American Ethnology, the International Exchanges, the National Zoological Park, the Astrophysical Observatory, which now includes the Division of Radiation and Organisms, the Smithsonian library, and of the publications issued under the direction of the Institution. On page 106 is the financial report of the executive committee of the Board of Regents.

THE SMITHSONIAN AND THE WAR

In my last report I stated that in the fiscal year 1941 the Smithsonian had been assigned several problems connected with national defense and stood ready to devote all its resources to such work when called upon. After Pearl Harbor, calls upon the Institution for special information relating to the war increased rapidly, and early in 1942 I appointed a War Committee for the purpose of exploiting every facility of the Institution in aiding the war effort. Such a highly specialized organization as the Smithsonian obviously can only undertake those things which its staff is trained and equipped to do, but the exploratory investigations of the War Committee revealed a surprisingly wide range of activities in which the Institution could engage that are directly or indirectly of real service in the war effort.

For some organizations whose normal activities are in fields directly applicable to war work, such for example as those concerned with strategic materials or those with large physical laboratories, the problem of going over to a war footing is solved for them. For such

establishments as the Smithsonian, with its normal functions of research, chiefly in the natural sciences, publication of results of scientific researches, museum and art gallery exhibition, and international exchange of literature, the problem is not so simple. Every member of the staff desires earnestly to do his utmost to aid in the war effort, but in many instances, as the following summary of Smithsonian war activities shows, the only possible way of putting the desire into effect is connected only indirectly with war work. Nevertheless, work such as that which the Smithsonian is qualified to perform will, I believe, be seen to fill a definite place in the Nation's all-out war effort.

The membership of the War Committee is as follows: C. W. Mitman, engineer, chairman; L. B. Aldrich, physicist; W. N. Fenton, ethnologist; Herbert Friedmann, biologist; and W. P. True, chief, editorial division. For several weeks the committee met every day in the effort to speed up the diversion of as much as possible of the Institution's work into war channels. Several questionnaires were sent to the staff asking for suggestions and detailed information as to the qualifications, travel, and special knowledge of each member. With these data before them, the committee began to make recommendations, most of which I approved and put into effect. Those projects which had been initiated up to June 30, 1942, are as follows:

1. The Institution has prepared a detailed roster of the scientific staff totaling nearly 100 scientists, listing their geographic and specialized knowledge. Some of this knowledge has proved to be readily available nowhere else, and the roster has been extensively used in connection with inquiries from war agencies.

2. A record of requests from war agencies for specific information from individual staff members shows a total of 460 such received since Pearl Harbor. Fifty percent came directly from the War and Navy Departments, the rest from 25 different other war agencies. In short, the Smithsonian is serving as an important source of technical and geographic information.

3. The Smithsonian, together with the National Research Council, the American Council of Learned Societies, and the Social Science Research Council, has actively participated in the setting up of the Ethnogeographic Board. The Institution furnishes financial support and facilities, and serves as the headquarters for the Board, whose purpose is to provide a central clearinghouse for information to Army and Navy Intelligence and other war agencies in the fields of geography, languages, and social sciences. Dr. William Duncan Strong, formerly of the Bureau of American Ethnology and now a member of the staff of Columbia University, was appointed director of the Board. Members of the staff of the Institution are cooperating closely in the work.

4. The Smithsonian has thousands of published and unpublished photographs taken by its scientists in all parts of the world, including many out-of-the-way places not commonly photographed. An index is being compiled of the published material, and members of the staff have put their photographic files in shape for ready consultation by war agencies. Many of its photographs have already been so consulted.

5. In the very important field of Latin American cooperation, the Institution has undertaken two large-scale scientific projects. One is a Handbook of the Indians of South America, under the editorship of Dr. Julian H. Steward, of the Bureau of American Ethnology. The various articles will be contributed by both Latin American and North American anthropologists. This will be published under the auspices of the Institution. The other is a list of the insects of South and Central America, a much-needed tool for all future entomological work in those areas. The completed list, which is estimated to make more than a thousand pages of print, will also appear as a Smithsonian publication.

6. Approximately 10 percent of the scientific staff are engaged in full-time war projects assigned to them by the Army, Navy, or other war agencies. This work is being done either at the Institution or through transfer of personnel to the agency requesting the work. All the rest of the staff members devote a portion of their time to work related directly or indirectly to the war, the actual amount of time depending on the extent to which their special knowledge is needed by war agencies.

7. In the line of its normal function of diffusion of knowledge, the Institution has initiated several wartime projects. A new series of pamphlets entitled "War Background Studies" and a series of news releases headed "War Background Data" have as their purpose the increasing of popular understanding of the various regions and peoples involved in the world conflict. In the Smithsonian's radio program, "The World Is Yours," four broadcasts were given on a Nation-wide network comprising a series on the peoples of the United Nations. Several special war exhibits were shown in the Smithsonian and Museum buildings and others are definitely planned. A series of special lectures on war topics has been arranged, and at the close of the fiscal year its beginning awaited only the installation of new projection equipment in the Museum auditorium. A set of six postcards illustrating Museum exhibits was printed for free distribution to service men; in conjunction with these, writing counters and a mail box were installed at the entrance to the Arts and Industries Building where men in uniform write and mail the cards. Thousands of sets had been given out at the close of the year, and this service

seems to be much appreciated. All the Museum buildings are now open all day Sunday for the benefit of service men and war workers.

8. The War Committee and officials of the Institution have established definite contacts with the War and Navy Departments and other war agencies; through these contacts continual efforts are being made to channel more war-time researches and other suitable activities to the Institution.

The War Committee will continue to function for the duration.

ENDING OF WRIGHT-SMITHSONIAN CONTROVERSY

By anticipation, I report with great relief and peculiar satisfaction the ending of the long controversy between Dr. Orville Wright and the Smithsonian Institution. Negotiations, in which Colonel Lindbergh and others had taken part, had proceeded intermittently between the Secretary and Dr. Wright since 1928. Since June 1942, in part with the mediation of Fred C. Kelly, an active interchange of communications has gone on. It resulted in a statement acceptable to Dr. Wright which was published by the Institution in its Miscellaneous Collections, volume 103, No. 8, October 24, 1942. This statement, which speaks for itself, it is intended to republish as the first article of the Appendix to the Smithsonian Report for 1942. In his letter of October 17, 1942, Dr. Wright says: "I hope the relations between the Institution and myself may again be as amicable as they were in Dr. Langley's administration."

SUMMARY OF THE YEAR'S ACTIVITIES OF THE BRANCHES OF THE INSTITUTION

National Museum.—Accessions for the year totaled 284,582 specimens, bringing the number of catalog entries in all departments to 17,578,240. Among the outstanding accessions may be mentioned the following: In anthropology, 200 artifacts from the old Indian village site of Potawomeke, Stafford County, Va.; cult objects from voodoo shrines in Haiti, and weapons of the Moro of Mindanao, P. I.; in biology, 30 Antarctic seals, 54 Manchurian mammals, 1,845 birds from Colombia collected by Dr. Alexander Wetmore and M. A. Carriker, Jr., 14,219 fishes from the area between Peru and Alaska received from the United States Fish and Wildlife Service, a collection of 25,000 specimens of Hemiptera received from W. L. McAtee, 7,600 specimens, mostly termites, collected in Jamaica by Dr. Edward A. Chapin, and 2,169 specimens of plants of Colombia received in continuation of exchanges from the Instituto de Ciencias Naturales, Bogotá, Colombia; in geology, a large aquamarine from Agua Preta, Minas Geraes, Brazil, purchased from the Roebling fund, a 2,690-gram specimen of the Rose City, Mich., stony meteorite presented by

Dr. Stuart H. Perry, 4 tons of limestone blocks of beautifully preserved silicified Permian fossils collected in Texas by Dr. G. A. Cooper, and 8,000 Cambrian and Devonian fossils collected by Dr. C. E. Resser in Montana, Utah, and the Canadian Rockies; in engineering and industries, a number of models of historic aircraft, an example of the Allison liquid-cooled aircraft engine, type V–1710–C, a jeep lent by the War Department, the first Emerson iron lung completed in 1931, and a collection of 183 Currier and Ives prints given by Miss Adele S. Colgate. Although field expeditions were greatly curtailed because of war conditions, those to which the Museum was previously committed were carried through with valuable results in specimens and new information. Visitors to the Museum numbered 2,042,817. Although this was nearly half a million less than in the previous year, nevertheless the decrease was less than had been anticipated in view of restrictions on automobile travel. The Museum issued 44 publications and distributed 82,545 copies during the year. Fifteen special exhibits were held in the Museum under the auspices of various scientific and other groups. Among numerous changes in the staff may be mentioned the retirement, after nearly 39 years of service, of Dr. Aleš Hrdlička as curator of the division of physical anthropology; Dr. T. Dale Stewart, associate curator of the division, was promoted to the curatorship to succeed him.

National Gallery of Art—The total attendance at the Gallery for the first full year of its operation was 2,005,328, a daily average of over 5,500 visitors. In June the Gallery began a series of Sunday evening openings for the benefit of service men and war workers. Concerts and special lectures featured these Sunday openings, which proved so successful that it was decided to continue them indefinitely. Publications available to the public are a general information booklet, a catalog of the paintings and sculpture, a book of illustrations of all the works of art in the Gallery, color reproductions, and postcards. Since Pearl Harbor the Gallery has been blacked out nightly, and frequent air-raid drills have been held. A limited number of the most fragile and irreplaceable works of art have been removed to a place of greater safety, but it is the expressed belief of the Board of Trustees that the Gallery has a duty to the public and an obligation as a source of recreation and education to continue its activities and even increase them in war time. Gifts of prints, paintings, and sculpture were accepted from eight different donors, and a number of important loans were received. Seven special exhibitions were held at the Gallery, including one of drawings of war-time London, another of the art of Australia, and one of 11 portrait busts of the Presidents of the Republics of South America, by Jo Davidson. The Gallery's educational program in-

cluded Gallery tours of the collection conducted twice daily; a series of 34 special lectures, one given each Saturday afternoon from October to April, and Gallery talks and other lectures dealing with a specific school or specific works of art. Beginning in December, special tours for members of the armed forces were arranged for Saturday afternoons.

National Collection of Fine Arts—The necessary plans were made during the year for the protection and evacuation of works of art in the National Collection. Four oil paintings and a number of other works of art were accepted for the collection by the Smithsonian Art Commission. Three miniatures were acquired through the Catherine Walden Myer fund. Eight special exhibitions were held as follows: Miniatures lent by Count and Countess Bohdan de Castellane; oils and water colors by Roy M. Mason, N. A.; oils, prints, and drawings by Antonio Rodriguez Luna, of Mexico; jade lent by Georges Estoppey; paintings on metal and prints by Buell Mullen; oils, water colors, and prints by members of the Landscape Club of Washington, D. C.; plaster busts by Marina Nuñez del Prado, of Bolivia; oil paintings, pencil drawings, lithographs, and water colors by Ignacio Aguirre, of Mexico.

Freer Gallery of Art.—Additions to the collections included Persian and Syrian brass; Chinese bronze; Chinese jade; Arabic manuscript; Arabic, Chinese, and Persian painting; Arabic, Mesopotamian, Persian, and Syro-Egyptian pottery. The regular work of the curatorial staff was devoted to the study and recording of these new acquisitions and other art objects already in the collection. In addition, 770 objects and 235 photographs of objects were submitted to the Director by their owners for information as to identity, provenance, quality, date, or inscriptions. Besides this usual work, the staff devoted much of its time during the winter and spring to work connected with the war. The total number of visitors to the Gallery for the year was 87,890. A number of groups were given docent service in the exhibition galleries and study rooms. Carl Whiting Bishop associate in archeology, a member of the Gallery staff since 1922, died on June 16, 1942. From 1923 to 1927, and from 1929 to 1934, Mr. Bishop was in charge of the Freer Gallery field work in China. He published numerous articles on Chinese archeology in various journals and was widely known as an authority on the earlier phases of Chinese culture.

Bureau of American Ethnology.—The time of the members of the Bureau's scientific staff has been devoted more and more to activities concerned with the war effort. Their specialized geographical, racial, and linguistic knowledge has been in constant demand by the Army, Navy, and other war agencies, and certain staff members

have cooperated closely with the Ethnogeographic Board, an agency that acts as a clearinghouse for anthropological, geographical, and related information needed in the war effort. As time permitted, the Bureau continued its normal work of studying the American Indian. M. W. Stirling, Chief of the Bureau, spent 2 months in Mexico in continuation of the Smithsonian Institution-National Geographic Society archeological project in that country. Dr. John R. Swanton continued work on a study of the language of the Timucua Indians of Florida and on the revision of a large general paper on the Indians of North America. Dr. John P. Harrington carried forward work on two problems involving linguistic studies of Aleut, the language of the islands between Asia and America, and of Athapascan, the language of the northern Rockies, of a large part of the Pacific coast, and of the southern deserts. Dr. Frank H. H. Roberts, Jr., conducted archeological excavations at a site near San Jon, N. Mex., uncovering an interesting sequence of projectile points and other artifact types and obtaining new information on aboriginal occupation of that area. Just before the close of the year Dr. Roberts went to Newcastle, Wyo., to inspect a promising archeological site. Dr. Julian H. Steward continued his work as editor of the Handbook of South American Indians, in the course of which he visited Brazil, Argentina, Paraguay, and Chile for conferences with Latin-American anthropologists. Dr. Henry B. Collins, Jr., continued the study of archeological materials from prehistoric Eskimo village sites around Bering Strait. Dr. W. N. Fenton carried on several investigations relating to the Iroquois Indians. Dr. Philip Drucker made an analysis of the pottery collections made in Mexico in 1941 by the Smithsonian Institution-National Geographic Society expedition. In continuation of the work of this expedition he went in January 1942 to a site at La Venta, in northwest Tabasco, where excavations resulted in a number of interesting discoveries. Miss Frances Densmore, a collaborator of the Bureau, recorded Omaha songs at Macy, Nebr. The Bureau published its Annual Report and three Bulletins. The library accessioned 350 items; the reclassification of the library was practically completed during the year.

International Exchanges.—The Exchange Service acts as the official United States agency for the interchange of parliamentary, governmental, and scientific publications between this country and the rest of the world. The Service handled during the year 561,151 packages of publications weighing 326,406 pounds. As would be expected, the work of the Exchange Service was greatly hampered by the war. In the Eastern Hemisphere only Great Britain and the Union of South Africa continued to receive shipments from this

country. In the Western Hemisphere, where all packages are sent by mail, there was no interruption to the sending of exchanges, although censorship caused some delay. In April 1942 the sending of the Congressional Record to foreign countries through the Exchange Service was discontinued for the duration at the request of the Office of Censorship.

National Zoological Park.—Although war conditions reduced the number of out-of-town visitors to the Zoo, more people from nearby areas came by bus and streetcar and on foot, bringing the total attendance for the year to 2,523,300, or sightly more than the number for the previous year. A considerable proportion of the attendance was made up of men in the armed services, many of them enjoying their first oportunity of visiting a large zoo. As usual, a large number of gifts of animals came to the Park, and there were 65 mammals born, 40 birds hatched, and 2 reptiles born during the year. Deaths included a sulphur-crested cockatoo that had been in the Zoo for 52 years, and the American bald eagle "Jerry," a Zoo resident for 26 years. The epidemic of psittacosis that caused serious losses of birds and caused the closing of the bird house to the public for 3 months, as noted in last year's report, was finally subdued through the cooperation of the United States Public Health Service and the District of Columbia Health Department. Many of the poisonous reptiles have been removed from the Zoo, leaving so few that they could be quickly disposed of in an emergency. At the close of the year, the collection contained a total of 2,411 animals, representing 722 different species.

Astrophysical Observatory.—The most important event of the year was the publication of volume 6 of the Annals of the Observatory, which covers its operations from 1920 to 1939. Besides describing in detail the principal research on the variation of the sun's radiation, the volume is the culmination of several years' work devoted to revising the daily results of observation of the solar constant of radiation at the three field observing stations at Montezuma, Chile, Table Mountain, Calif., and Mount St. Katherine, Egypt, from 1923 to 1939. The values published clearly indicate the variation of the sun between extreme ranges up to about 3 percent for the period covered. The variation is shown to be composed of 14 periodicities ranging from 8 months to 273 months. Each of these periods is reflected in terrestrial temperature and precipitation as recorded by official weather services. Another important event was the incorporation as a branch of the Observatory of the Smithsonian Division of Radiation and Organisms, hitherto supported by private funds. Considerable confidential work for military purposes was done in the Observatory's instrument shop under the care of

the Director. Because of the discovery that the percentage variations of the intensity of sun's rays is 6 times as great for ultraviolet rays as for the total of all wave lengths, apparatus was prepared in the instrument shop for restricting the determinations of solar variations to the spectral regions of the green, blue, violet, and ultraviolet rays. This apparatus has been installed at all three field stations. Also prepared in the instrument shop were three copies of a sky polarization device invented by the late Prof. E. C. Pickering. It is believed that the use of this device at the observing stations will obviate the unsatisfactory results brought about by certain types of sky conditions. Solar observations on all favorable days have been continued at the three present field stations at Table Mountain, Calif., Burro Mountain, N. Mex., and Montezuma, Chile.

Division of Radiation and Organisms.—On July 1, 1941, the Division became a branch of the Astrophysical Observatory and received Congressional appropriation for the support of its researches. Members of its staff were given Civil Service status. The present research work of the Division comes under three headings: Photosynthesis, plant growth and radiation, and development of apparatus and methods. Experiments were continued on the factors that influence the change in rates of respiration in plants, which led to speculation on the possibility of the existence of a carbon dioxide reservoir connected with the cell mechanism. There is evidence also that the humidity of the air plays an important role in this gaseous exchange. The study of the relationship between light intensity and inhibition of growth of the oats mesocotyl was extended to higher intensities. Work is in progress on the isolation and separation of two pigments indicated to occur in dark-grown oat seedlings. Previous work in the Division had shown that illumination increases the rate of carbon dioxide production by etiolated barley seedlings. Apparatus was assembled and preliminary experiments were begun to study the influence of radiation on the respiration of other types of plants. (Since October 1942 the Division has done war work only.)

THE ESTABLISHMENT

The Smithsonian Institution was created by act of Congress in 1846, according to the terms of the will of James Smithson, of England, who in 1826 bequeathed his property to the United States of America "to found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men." In receiving the property and accepting the trust, Congress determined that the Federal Government was without authority to administer the trust directly, and, therefore, constituted an "establishment" whose statutory members are "the

President, the Vice President, the Chief Justice, and the heads of the executive departments."

THE BOARD OF REGENTS

Changes in the Board of Regents during the fiscal year included the election at the Board meeting on January 16, 1942, of Chief Justice Harlan F. Stone as Chancellor of the Institution, to succeed former Chief Justice Charles E. Hughes, and the appointment by Joint Resolution of Congress approved August 21, 1941, of the Honorable Frederic C. Walcott, a citizen of Connecticut, to succeed the late R. Walton Moore. By Joint Resolution of Congress approved August 21, 1941, Frederic A. Delano, of the city of Washington, D. C., was reappointed to succeed himself for the statutory term of 6 years.

The roll of regents at the close of the fiscal year was as follows: Harlan F. Stone, Chief Justice of the United States, Chancellor; Henry A. Wallace, Vice President of the United States; members from the Senate—Charles L. McNary, Alben W. Barkley, Bennett Champ Clark; members from the House of Representatives—Clarence Cannon, William P. Cole, Jr., Foster Stearns; citizen members—Frederic A. Delano, Washington, D. C.; Roland S. Morris, Pennsylvania; Harvey N. Davis, New Jersey; Arthur H. Compton, Illinois; Vannevar Bush, Washington, D. C.; and Frederic C. Walcott, Connecticut.

Proceedings.—The annual meeting of the Board of Regents was held on January 16, 1942. The regents present were Chief Justice Harlan F. Stone, Chancellor; Vice President Henry A. Wallace; Representatives Clarence Cannon, William P. Cole, Jr., and Foster Stearns; citizen regents Frederic A. Delano, Roland S. Morris, Harvey N. Davis, Vannevar Bush, and Frederic C. Walcott; and the Secretary, Dr. Charles G. Abbot.

The Board received and accepted the Secretary's annual report covering the year's activities of the parent Institution and the several Government branches. The Board also received and accepted the report by Mr. Delano, of the executive committee, covering financial statistics of the Institution; and the annual report of the Smithsonian Art Commission.

In his special report the Secretary outlined some of the more important activities carried on by the Institution and the branches during the year.

FINANCES

A statement on finances will be found in the report of the executive committee of the Board of Regents, page 106.

MATTERS OF GENERAL INTEREST

SMITHSONIAN RADIO PROGRAM

The educational radio program known as "The World Is Yours," sponsored jointly by the Smithsonian Institution, the United States Office of Education, and the National Broadcasting Co., was terminated with the broadcast of May 10, 1942, after nearly 6 years of successful operation. On the air every week almost without a break for more than 300 weeks, the series finally was brought to an end because of the urgent demand of war agencies for radio time. In explaining the necessity for closing the program, Thomas D. Rishworth, director of public service programs, Eastern Division, National Broadcasting Co., wrote to the Institution:

> I regret that it was necessary to cancel "The World Is Yours" in view of its long and successful history as one of our oldest educational broadcasts * * * The war emergency has brought upon radio many difficulties that were unforseen, not the least of which is the impossibility of expanding a strictly limited schedule to meet the needs of all agencies involved in the war effort * * * I believe everyone will agree that through "The World Is Yours" you have made a unique contribution to the development of the educational significance of radio in terms that were interesting to all types of listeners.

"The World Is Yours," a half-hour dramatized program, first went on the air on June 7, 1936, and almost every week since that time it has presented over a Nation-wide National Broadcasting Company network some phase of science, invention, history, and art. The series from the beginning struck a responsive chord in radio listeners throughout the country. Supplementary articles on the subjects discussed were offered to listeners, and many thousands of those who responded took occasion to express enthusiastic commendation of the program. It was made very evident that the American public is keenly interested in science, history, and related fields if the subjects are brought alive by dramatization and if excessive technicality is avoided.

Radio proved to be an ideal aid in achieving a principal goal of the Institution, namely, the diffusion of knowledge. For this reason it was with great regret that "The World Is Yours" was brought to an end as one of the sacrifices that have to be made when the country is at war.

The subjects presented during the year up to the close of the series on May 10 were as follows:[1]

	1941	
Thomas Jefferson	July	5
Builders of American Aircraft	July	12
Pirates of the Deep	July	19

[1] Because of National Broadcasting Co. commitments, no programs were given on November 16, 1941, and January 11, February 22, March 15, and April 12, 1942.

	1941	
Dust Storms	July	26
Herbert Ward	Aug.	2
Our Nearest Neighbor in Space	Aug.	9
John Ericsson	Aug.	16
Chemistry—and American Independence	Aug.	23
The Norsemen in Greenland	Aug.	30
Gilbert Stuart	Sept.	7
Cave and Cliff Dwellers	Sept.	14
Pompeii Lives Again	Sept.	21
Historical Gems	Sept.	28
Industry Calls on Physics	Oct.	5
Samuel Slater	Oct.	12
Insect Allies of Man	Oct.	19
South Sea Islanders	Oct.	26
The Story of Wheat	Nov.	2
Unsung American Heroes	Nov.	9
Arctic Explorers	Nov.	23
Hunting in Colonial Times	Nov.	30
Ancient Carthage	Dec.	7
Miracles of Modern Medicine	Dec.	14
A Great American Geologist	Dec.	21
Light that Heals	Dec.	28
	1942	
Our Expanding Knowledge	Jan.	4
Forests and the War	Jan.	18
Stephen Decatur—Naval Hero	Jan.	25
Zebulon Montgomery Pike	Feb.	1
Chemicals from the Air	Feb.	8
The Gasoline Engine	Feb.	15
The Musk Ox	Mar.	1
The Saga of the Comstock Lode	Mar.	8
The Fight on the Arikaree	Mar.	22
Bigelow and the Carpet Industry	Mar.	29
Balboa and the Discovery of the Pacific	Apr.	5
Australia	Apr.	19
China	Apr.	26
The Philippines	May	3
Russia	May	10

WALTER RATHBONE BACON SCHOLARSHIP

The Walter Rathbone Bacon scholarship of the Smithsonian Institution for 1941–1943 was awarded in July 1941 to Philip Hershkovitz, of the University of Michigan, for a study of the distribution of mammals in Colombia. On November 8, 1941, Mr. Hershkovitz departed from New York on the steamship *Platano* and arrived November 14 at Barranquilla, Colombia, where arrangements for field work were completed with the assistance of the Department of State through the Hon. Nelson R. Park, the American consul. After having obtained the necessary permits for travel and for the collecting of natural history specimens from the Governor of the

Department of Atlántico, Mr. Hershkovitz was invited by Mr. Crump, owner of a ranch at Sabana Larga, to set up camp on his land. Collections were made in the northern portion of the Ciénaga de Guájaro near Arroya de Piedra and on Cerro de la Guayta from November 28 to December 18. Returning to Barranquilla, he examined the Indian burial ground uncovered at the Soledad airport south of that city, and with the help of P. J. De Guerin, office engineer of Avionca, a subsidiary of the Pan-American Airways, excavated pottery and portions of human skeletons.

After some delay, Mr. Hershkovitz departed on January 3, 1942, from Barranquilla for Caracolicito, arriving there January 4. On invitation from the director, Sr. José I. Martinez, Mr. Hershkovitz made collections in the tropical forests surrounding Colonia Agrícola de Caracolicito from January 9 to March 16. From this region he moved camp to Pueblo Bello (Pueblo Viejo Sur) on the southern flank of the Sierra Nevada de Santa Marta, Department of Magdalena, and worked there from April 19 to June 6. As a result of centuries of deforesting, overgrazing, and burning by the Indians, the general appearance of this region is now that of a savanna with small stands of second-growth timber in the valleys and small patches of virgin forest on the inaccessible parts of the hills. Consequently, collecting did not produce as good results as had been anticipated. About the middle of June, collecting was begun at El Salado, about halfway between Pueblo Bello and Valencia.

ELEVENTH ARTHUR LECTURE

The late James Arthur, of New York, in 1931 bequeathed to the Smithsonian Institution a sum of money, part of the income from which should be used for an annual lecture on the sun.

The eleventh Arthur lecture, under the title "The Sun and the Earth's Magnetic Field," was given by John A. Fleming, director, department of terrestrial magnetism, Carnegie Institution of Washington, in the auditorium of the National Museum on February 26, 1942. The lecture will be published in full in the next Smithsonian Report.

The 10 previous Arthur lectures have been as follows:

1. The Composition of the Sun, by Henry Norris Russell, professor of astronomy at Princeton University. January 27, 1932.
2. Gravitation in the Solar System, by Ernest William Brown, professor of mathematics at Yale University. January 25, 1933.
3. How the Sun Warms the Earth, by Charles G. Abbot, Secretary of the Smithsonian Institution. February 26, 1934.
4. The Sun's Place among the Stars, by Walter S. Adams, director of the Mount Wilson Observatory. December 18, 1934.

5. Sun Rays and Plant Life, by Earl S. Johnston, assistant director of the Division of Radiation and Organisms, Smithsonian Institution. February 25, 1936.
6. Discoveries from Eclipse Expeditions, by Samuel Alfred Mitchell, director of the Leander McCormick Observatory, University of Virginia. February 9, 1937.
7. The Sun and the Atmosphere, by Harlan True Stetson, research associate, Massachusetts Institute of Technology. February 24, 1938.
8. Sun Worship, by Herbert J. Spinden, curator of American Indian Art and Primitive Cultures, Brooklyn Museums. February 21, 1939.
9. Solar Prominences in Motion, by Robert R. McMath, director of the McMath-Hulbert Observatory of the University of Michigan. January 16, 1940.
10. Biological Effects of Solar Radiation on Higher Animals and Man, by Brian O'Brien, professor of Physiological Optics, University of Rochester. February 25, 1941.

EXPLORATIONS AND FIELD WORK

Explorations, often in out-of-the-way corners of the earth, have always formed a major part of the Institution's program for the "increase and diffusion of knowledge." Although world conditions during the past year have made it either impracticable or undesirable to send out many of the expeditions that normally would have taken the field, nevertheless, even under the present unfavorable conditions it was found possible to carry on some field work in connection with researches previously commenced.

In astrophysics, the Institution's field observers carried on their study of the intensity of solar radiation at the three Smithsonian observing stations on Mount Montezuma, Chile, Table Mountain, Calif., and Burro Mountain, N. Mex. Observations were made on every suitable day throughout the year, and the results were transmitted to Washington where they are used in investigations on the variability of solar radiation and on the relation between this variability and the earth's weather.

In geology, Dr. W. F. Foshag directed an expedition in cooperation with the United States Geological Survey with the purpose of studying certain strategic-mineral resources of Mexico. Dr. Charles E. Resser continued his studies of Cambrian rocks from Montana into the Canadian Rockies, obtaining much new information and many desirable specimens pertaining to the ancient Cambrian period. Dr. G. Arthur Cooper made large collections of Carboniferous and Permian fossils in Texas and Oklahoma, including much material hitherto lacking in the National Museum collections. A third expedition to the Bridger Badlands of southwestern Wyoming in search of extinct vertebrate animals was directed by Dr. C. Lewis Gazin; many interesting exhibition and study specimens were brought back to the Museum, including a 1,270-pound slab containing 12 or 13 fossil turtles.

In biology, Dr. E. A. Chapin visited the island of Jamaica to continue his studies of the insect fauna with special reference to the termites. Large collections of the plants of Cuba were made by C. V. Morton, who spent 2 months on the island in botanical field work accompanied by two Cuban Government botanists.

In anthropology, Dr. T. D. Stewart visited Peru to make a scientific examination of the skeletal remains exposed in the numerous ancient cemeteries of that country; he also gathered information on the skeletal collections in Peruvian museums. As an extension of Smithsonian cave explorations in the Big Bend region of Texas, Walter W. Taylor investigated caves in the region of Ciénegas, Coahuila, Mexico, some 20 caves being excavated in the course of the work. Dr. Frank H. H. Roberts, Jr., conducted archeological investigations near the town of San Jon, eastern New Mexico, revealing four types of projectile points from four stratigraphic horizons, the oldest type in association with an extinct bison and with indications that it may be contemporaneous with the Folsom horizon. Dr. William N. Fenton recorded Iroquois songs in New York State and Canada in cooperation with the Division of Music in the Library of Congress.

PUBLICATIONS

The publications of the Institution and its branches, issued in several distinct series, constitute its chief means of accomplishing the "diffusion of knoweldge." The Smithsonian Annual Report contains, in addition to the Secretary's administrative report, a general appendix made up of selected nontechnical articles which together constitute a survey of the current state of knowledge in many fields of scientific investigation. The series Smithsonian Miscellaneous Collections provides an outlet for the results of researches by Smithsonian scientists or collaborators of the Institution without restriction as to the field covered. The Bulletin and Proceedings of the National Museum record the investigations of members of its staff, as well as of outside scientists, based on the great collections of the Museum. The Bulletins of the Bureau of American Ethnology deal with various phases of the study of the American Indians. Other series include the Annals of the Astrophysical Observatory, the title of which is self-explanatory, and Smithsonian War Background Studies, a new series intended to disseminate information on the peoples and areas involved in the present war.

During the year, 100 publications were issued, 51 by the Institution proper, 44 by the National Museum, 4 by the Bureau of American Ethnology, and 1 by the Astrophysical Observatory. The titles, authors, and other details of these publications will be found in the

report of the chief of the editorial division, appendix 11. The total number of publications distributed was 162,525.

Outstanding among the year's publications may be mentioned volume 6 of the Annals of the Astrophysical Observatory, covering 20 years' investigations of the solar radiation; a paper by the late Carl Whiting Bishop entitled "Origin of the Far Eastern Civilizations: a Brief Handbook"; a paper by Frank C. Hibben on "Evidences of Early Occupation in Sandia Cave, New Mexico * * *," which throws more light on the earliest occupants of this continent; a new edition of the "Handbook of the National Aircraft Collection," by Paul E. Garber; and another volume in the series on life histories of North American birds by Arthur Cleveland Bent, "Life Histories of North American Flycatchers, Larks, Swallows, and Their Allies." The continued demand for the Smithsonian volumes of tables, in large part from war agencies, necessitated a reprinting of the Smithsonian Meteorological Tables and the Smithsonian Physical Tables.

LIBRARY

In common with the scientific libraries of international scope, the Smithsonian library suffered severe disruption from the impact of the war. Publication of scientific books and periodicals declined abroad, and those that were issued were obtainable only with great difficulty if they could be obtained at all. After Pearl Harbor, of course, library exchanges ceased with nearly all countries except those in the Western Hemisphere. The brighter side of the picture, however, is the service the library has been able to render to war agency officials, not only by providing access to published information, but also by putting inquirers in touch with members of the Institution's staff having specialized knowledge and by arranging introductions to outside sources. Taking advantage of the decreased amount of time devoted to foreign exchanges, the library staff grasped the opportunity of recataloging older material that has long needed attention and of strengthening and extending domestic exchanges. As usual many gifts came to the library from associations and individuals, noteworthy among them being 724 publications from the American Association for the Advancement of Science, 68 from the American Association of Museums, and a library of some 2,000 items on Copepoda assembled by the late Dr. Charles Branch Wilson and presented by his son, Carroll A. Wilson. The most important of the changes in the library personnel was the retirement on January 31, 1942, of William L. Corbin, librarian for more than 17 years, and the appointment to succeed him of Mrs. Leila F. Clark, who had been assistant librarian in charge of the National Museum library since 1929. The year's statistics show 5,685 accessions, bringing the library's

total holdings to 867,200; 229 new exchanges arranged; 4,040 "wants" received; 4,775 volumes and pamphlets cataloged; 29,826 cards filed in catalogs and shelflists; 12,258 periodicals entered; 9,978 books and periodicals loaned; and 1,400 volumes sent to the bindery.

Respectfully submitted.

C. G. Abbot, *Secretary.*

APPENDIX 1

REPORT ON THE UNITED STATES NATIONAL MUSEUM

SIR: I have the honor to submit the following report on the condition and operation of the United States National Museum for the fiscal year ended June 30, 1942:

Appropriations for the maintenance and operation of the National Museum for the year totaled $830,978, which was $12,673 more than for the previous year.

COLLECTIONS

Additions to the collections of the Museum aggregated 1,388 separate accessions, comprising 284,582 individual specimens, a decrease, compared with the previous year, of 130 accessions and 42,104 specimens. Distribution of these additions among the five departments was as follows: Anthropology, 3,000; biology, 245,200; geology, 32,418; engineering and industries, 2,415; and history, 1,549. These acquisitions were received principally as gifts from individuals, or as a result of expeditions sponsored by the Smithsonian Institution. All are listed in detail in the full report on the Museum, published as a separate document, but the more important are summarized below. The total number of catalog entries in all departments is now 17,578,240.

Anthropology.—The division of archeology received 68 Greek, Roman, and Egyptian specimens collected by Thomas Nelson Page; several examples of ancient Persian pottery and armor; about 700 artifacts excavated in Florida; more than 200 stone, bone, pottery, and shell specimens from the old Indian village site of Potawomeke, Stafford County, Va.; and 175 artifacts from southern California. In ethnology, blankets, jewelry, and wearing apparel, representing the culture of the Navaho of Arizona, the Zuñi, the Tule Indians of the San Blas coast of Panama, the Indians of Guatemala, the Chocó Indians of Darién, and the Comanche Indians were of outstanding interest. The ethnological collections were also augmented by masks, food bowls, head rests, and cult objects from voodoo shrines in Haiti, and cutting and slashing weapons made by the Moro of Mindanao, P. I. Among the important accessions to the collection of ceramics were a glazed Parian pitcher made about 1850 in Vermont; a Bilston snuffbox made in 1759; an interesting collection of

eighteenth- and nineteenth-century European ware including pottery, porcelain, and glass; and examples of Sandwich glass dating to about 1840.

Biology.—The important mammalian accessions of the year included 30 Antarctic seals, representing 4 genera and including 3 skins and 3 skeletons of the rare Ross's seal; 151 mammals from Mohave County, Ariz.; 54 Manchurian mammals, one of which was new to science; a Tibetan fox skin (*Cynalopex corsac*), a genus hitherto unrepresented in the Museum, from Yunnan, China; and 35 bats collected in caves near Washington.

Among the most important and valuable avian accessions of the year are 1,845 skins collected in Colombia by Dr. Alexander Wetmore and M. A. Carriker, Jr.; 447 birds from Brazil from the Rockefeller Foundation; bird skins from Mexico, Manchuria, Paraguay, and Alaska. Skins representing forms new to the Museum collection included 5 from Venezuela, 1 from Chile, and 1 from Ecuador. The Fish and Wildlife Service of the Department of the Interior transferred 53 birds from various parts of the world and 3 sets of eggs of rare North American waterfowl. Of the skeletal material acquired, 63 skeletons were collected by members of the staff, and 90 were received from the National Zoological Park.

An outstanding accession of the division of fishes consisted of 14,219 specimens from the area between Peru and Alaska, received by transfer from the United States Fish and Wildlife Service. President Franklin D. Roosevelt presented a fine "mother of eels," *Macrozoarces americanus*, caught off Novia Scotia on August 9, 1941. The type material of *Hypsoblenniops rickettsi* was included in a collection of 107 specimens of fishes from the Gulf of California. New material, received in exchange, included the following: Holotypes and paratypes of new species from Liberia and Cameroons; 29 paratypes from Brazil, Yucatán, and Venezuela; a cotype of *Elanura forficata* from Bering Sea; and one paratype each of *Sebastodes owstoni*, *Nectarges nepenthe*, *Machaerenchelys vanderbilti*, and *Spinoblennius spiniger*.

The division of insects received the collection of Hemiptera built up by Waldo L. McAtee, of the Fish and Wildlife Service, consisting of approximately 25,000 specimens and containing much type material. Mr. McAtee also presented volumes and papers on entomological subjects needed for the division's sectional library. The collection of the late George P. Engelhardt and his entomological books were also acquired by the division—these in addition to the more than 5,000 specimens of Lepidoptera presented by Mr. Engelhardt before his death. The material collected by the curator, Dr. Edward A. Chapin, during an expedition in Jamaica, consisting of about 7,600

specimens, mostly termites, was accessioned during the year. A large collection, mostly beetles, was received as a gift from the Colombian Government. Among other large lots of insects received was a collection of 52,000 specimens taken by the United States Bureau of Entomology and Plant Quarantine, in connection with its activities.

Accessions to the division of marine invertebrates included 17 species new to the collections, representing crayfish, crabs, stomatopods, pycnogonids, ostracods, turbellarian and sipunculid worms, earthworms, rotifers, sponges, and barnacles. The division's sectional library received as a bequest from Dr. Charles Branch Wilson a comprehensive library (approximately 2,500 books and pamphlets) on copepods. Among the more important accessions received by the division of mollusks during the year was a collection made by Dr. Alexander Wetmore and M. A. Carriker, Jr., in Colombia. This collection included several new species of mollusks. Two purchases were made through the Frances Lea Chamberlain fund, consisting of 203 lots of 843 specimens. Several large collections of mollusks were received, representing the fauna of Fiji, Australia, New Zealand, Costa Rica, and Hawaii, as well as various localities in the United States. Many smaller accessions included types of new species. Additions to the helminthological collection also contained numerous types and cotypes. The Museum's collection of corals was augmented by 447 specimens, and among the more important accessions of the division of echinoderms is the first specimen of the brittlestar *Ophiocoma aethiops* known from Peru.

Among the more important accessions recorded by the division of plants (National Herbarium) was a lot of 2,169 specimens received in continuation of exchange from the Instituto de Ciencias Naturales, Bogotá, Colombia. A cooperative project between this institution and the National Museum now in preparation, a descriptive Flora of Colombia, will include a report on the above-mentioned material.

Geology.—Among the 156 minerals added by purchase to the Roebling collection was a large, deeply etched aquamarine from Agua Preta, Minas Geraes, Brazil, the finest single specimen acquired during the year. Other accessions included exceptional examples of copper minerals and lead carbonate, an unusual crystallized turquoise, a monazite crystal from Brazil, and a mass of the phosphate lithiophilite. Three acquisitions of exceptionally fine minerals were obtained by purchase from the collection of Dr. Otto Runge through the Canfield fund. The most outstanding additions to the gem collection came through a bequest of Mrs. Mary Vaux Walcott, among which a valuable 12-carat alexandrite, a string of pearls, and 14 necklaces of gem quality are worthy of special mention. The geological collections were also augmented by several important specimens of meteorites and ores, among them a complete specimen of the

Rose City, Mich., stony meteorite, weighing 2,690 grams, one of the largest individuals of that fall, presented by Dr. Stuart H. Perry, and a 184-pound mass of cassiterite from Goodwin Gulch, Stewart Peninsula, Alaska, perhaps the largest single piece of this tin mineral ever found.

Outstanding among the accessions by the division of invertebrate paleontology and paleobotany are a lot of more than 1,500 type specimens of fossil invertebrates; 4 tons of limestone blocks containing beautifully preserved silicified fossils obtained by Dr. G. A. Cooper in the Permian formations of the Glass Mountains of Texas; and 8,000 invertebrate fossils obtained by Dr. C. E. Resser from the Cambrian and Devonian rocks of Montana, Utah, and the Canadian Rockies.

Engineering and industries.—Scale models of historic aircraft formed the largest group of important objects received by the division of engineering. Among these are models of 10 winners of the Thompson Trophy air races and a model of Sikorsky's 4-motor biplane, *Grand*, of 1913, which is called the first successful 4-motor airplane. A timely addition to the division's extensive series of aircraft engines is an example of the Allison liquid-cooled internal combustion engine, type V–1710–C, which represents one of industry's great contributions to the present war. Another very timely accession is a ¼-ton, 4-wheel-drive reconnaissance and command automobile, or "jeep," lent by the War Department. A transparent, plastic-body 1939 Pontiac automobile, received as a loan, fills the division's need for a late-model car.

With the consent of interested persons, the material contained in boxes deposited in the care of the Smithsonian Institution by Alexander Graham Bell in 1880 and 1881 was transferred to the division of engineering. Included are several photophone transmitters, selenium cell elements of receivers, an electrotype phonogram, and a graphophone equipped with a reproducing element designed to reproduce sound through the medium of a jet of air without mechanical contact with the record.

The most valuable object added to the medical exhibit was the first Emerson iron lung, completed in 1931, and used for several years to produce artificial respiration.

The most noteworthy accession in graphic arts was the gift of 183 Currier and Ives prints previously loaned to the division of graphic arts by Miss Adele S. Colgate. This accession was reported and described briefly in the report for 1941. With the cooperation of the Evening Star Newspaper Co. of Washington, the division's exhibit showing the steps in the printing of a newspaper was entirely renovated by the substitution of 23 new specimens to replace those now obsolete.

History.—The art material accessioned by the division of history includes a water-color sketch, painted in 1918, by Georges Scott, emblematic of the cordial relations existing between France and the United States. For the numismatic collection the Treasury Department forwarded a number of California gold tokens, coins, and examples of the bronze, nickel, and silver coins struck at the Denver, Philadelphia, and San Francisco mints in 1941. The philatelic material was increased by 1,301 specimens, which were transferred from the Post Office Department. Among these are stamps for countries now occupied by Germany, including German stamps overprinted "Luxemburg," and stamps issued by Germany for Poland.

EXPLORATIONS AND FIELD WORK

Explorations by members of the Museum staff have produced valuable information and highly useful series of specimens in various fields. The work has been made possible mainly by funds provided by the Smithsonian Institution, and by interested friends. With the entry of the United States into the war in December, the program of field activities was definitely curtailed. The expeditions from that date were those already in the field, or those that were required because of commitments previously made. Though the scope of the work has been decidedly less than in normal years, valuable results have been obtained.

Anthropology.—Walter W. Taylor, Jr., honorary collaborator in anthropology, completed archeological explorations around Cuatro Ciénegas in Coahuila, northern Mexico, which he inaugurated during the previous fiscal year. He conducted excavations in Fat Burro Cave and in Nopal Shelter, in Canyon de Jora, about 21 miles west of Cuatro Ciénegas. He then moved camp to Sierra de San Vicente, 20 miles southeast of Ciénegas, where he excavated a large site called Frightful Cave, located in the only through canyon in the San Vicente range. In this cave, which measures about 200 feet long and tapers in width from 30 feet at the entrance to 3 feet at the rear, the deposits ranged in depth from 10 feet to 3 feet, and consisted of compact floors, over which were superimposed strata of fire-cracked stones, ash, and fiber. Noteworthy specimens recovered from Fat Burro Cave consist of an atlatl, or throwing-stick foreshaft, with an arrow attached by sinew; a series of split-twig loops, comparable to those from the Big Bend area in Texas; stone projectile points similar to those from caves along the Pecos River, Texas; and a few pieces of split-stitch basketry. From Frightful Cave he recovered twilled woven bags filled with buckeyes, grooved clubs, four distinct types of fiber sandals, twined woven mats, and aprons. All the material collected was packed and transported to Mexico City

for inspection by the scientists of the Instituto Nacional de Anthropología e Historia, where Mr. Taylor received every courtesy from the Director of the Institution, Sr. Lic. Alfonso Caso, and the Director of the Department of Prehispanic Monuments, Sr. Ing. Ignacio Marquina.

From the end of May to the middle of June 1942, Frank M. Setzler, head curator of the department of anthropology, was detailed to the National Park Service for the purpose of directing a rapid archeological reconnaissance within the canyons formed by the Yampa and Green Rivers in northwestern Colorado and eastern Utah, to locate and evaluate the prehistoric caves, shelters, and village sites within an area that may be inundated eventually, if proposed dams are built along these rivers. The expedition traveled by boat through the various rapids within the canyon, and discovered and tested numerous sites. A detailed report covering the results of these investigations was prepared and submitted to the National Park Service before the close of the fiscal year.

Biology.—In March, M. A. Carriker, Jr., carrying on the work begun last year with Dr. Wetmore, continued the study and collection of birds in northeastern Colombia. From Codazzi, in the Department of Magdalena, he traveled into the mountains to establish a base that gave access to the higher peaks along the Venezuelan border. These investigations were supplemented by collections from the lowland areas, which were of value in connection with materials obtained in March 1941 at Caracolicito, in the drainage of the Río Ariguaní. At the close of the fiscal year these studies, which were made possible by the W. L. Abbott fund of the Smithsonian Institution, were still in progress.

Dr. Leonard P. Schultz, curator of fishes, was absent from February 1 to May 28 in Venezuela in connection with the program of the Department of State for promoting cultural relations with other American countries. Dr. Schultz spent 2 weeks in Caracas, where he consulted with various scientific groups, and the remainder of his time in the Maracaibo Basin, studying the fish fauna of that region. His work there was made possible by the friendly cooperation of the Lago Petroleum Corporation at Maracaibo and Lagunillas. For 8 days Dr. Schultz collected in the valleys of the Río Motatán, Río Chama, Río Catatumbo, and Río Torbes, all in the Andes. He obtained about 10,000 fish specimens, including approximately 115 species, and other natural-history material. The fish collection is the most complete one that has been made in this region and will afford valuable new information in this field.

Dr. E. A. Chapin, curator of insects, worked for 6 weeks in Colombia, in connection with the above-mentioned program of the

Department of State. For 5 weeks he was in the vicinity of Bogotá, mainly at the Instituto de Ciencias Naturales in the University Center. Through the courtesy of Dr. Armando Dugand, Director of the Instituto, Dr. Chapin's researches were conducted with the close cooperation of Luis M. Murillo, chief entomologist of the Colombian Government, Francisco Otoya, assistant entomologist, and Hernando Osorno, preparator. Mr. Murillo conducted several field trips that permitted Dr. Chapin to become acquainted with some of the major entomological problems of the country. These included investigations in the citrus regions near Cachetá, Pacho, and Guateque, and two trips into the Páramo near Guasca. Study in the Bogotá area was accompanied by a tour of other scientific agencies in Colombia. Dr. Chapin visited the agricultural institute at Medellín, where work on the collection of insects is under the direction of Dr. F. L. Gallego. The party, consisting of Messrs. Murillo, Otoya, and Cabal (an entomological student), and Dr. and Mrs. Chapin, then proceeded to the Agricultural Experiment Station at Palmira. While they were in Cali Dr. Belisario Losada escorted the party on a collecting trip into the Cordillera. They then returned to Bogotá for a final week of work at the Instituto, where special attention was given to the family Coccinellidae, which is of considerable economic importance in Colombia. Plans were formulated for further collaboration between the Instituto and the United States National Museum, with a monographic account of the Coccinellidae of Colombia as the end in view.

C. V. Morton, assistant curator of plants, spent October and November in Cuba, under the sponsorship of the National Museum and the Department of State, for the dual purpose of botanical field work and the furthering of cooperation with Cuban scientists. Mr. Morton was occupied part of the time in making partial catalogs of the ferns in various herbaria. In cooperation with the Cuban Department of Agriculture, and in association with Messrs. Acuña and Alonzo, of the Estacíon Agronómica at Santiago de Las Vegas, he also undertook field work in the mountainous part of Oriente, especially on the Sierra Nipe, and the northern slopes of the Sierra Maestra. Later he made collections in the Trinidad Mountains of Las Villas, with the Harvard Botanical Garden at Soledad as a base, and, through the friendly interest of the Colegio de La Salle of Habana, in the Sierra de Los Organos in Pinar del Río. These expeditions resulted in the collection of 6,000 specimens, representing approximately 1,600 numbers.

Dr. E. H. Walker, assistant curator of plants, was occupied for a week in June in the Piedmont and the Blue Ridge Mountains of North Carolina and South Carolina, making botanical collections.

Under Dr. Walker's leadership, local field work has been carried on by members of the Conference on the District of Columbia Flora.

Geology.—Field trips to the West for vertebrate and invertebrate paleontological collections were specially successful this year.

Dr. C. E. Resser, curator of invertebrate paleontology spent part of the summer in Montana, and part in the Canadian Rockies. Accompanied by George Burke Maxey, of Missoula, Mont., he first made a brief collecting trip to the northern Wasatch Mountains in search of Cambrian fossils. In the Canadian Rockies they devoted the first 2 weeks to the study of Cambrian beds in the mountains adjacent to the Bow Valley, chiefly at Castle Mountain, and in the Valley of the Ten Peaks at Moraine Lake, where they found excellent fossils high on nearby Eiffel Peak. They worked for more than a month from a base camp at the foot of Mount Stephen, 3 miles west of Field, covering an area as far east as Lake Louise and west beyond Emerald Lake. For nearly three-quarters of a century the fossil bed on Mount Stephen has been known to paleontologists throughout the world. The trail leading up from Field is only 3 miles long, but it climbs 2,700 feet. Entire trilobites are common, and many other fossils are obtainable. With the permission of the Canadian National Park Service, Dr. Resser and his party collected excellent material. Later it was Dr. Resser's privilege to follow the trail on the north side of the Kicking Horse River to Burgess Pass, made famous by Dr. C. D. Walcott, former Secretary of the Smithsonian Institution, by his discovery of the most remarkable fauna of these earliest geological periods yet found.

Dr. G. Arthur Cooper, associate curator of vertebrate paleontology, collected fossils in Texas and Oklahoma. In Fort Worth he met Dr. N. D. Newell, and for 3 days, together with Dr. Ralph H. King, of the Kansas Geological Survey, they collected in north-central Texas, proceeding from there to Marathon, Tex., where they spent a month collecting Permian limestone blocks containing silicified fossils. In late July Dr. Cooper met Mrs. J. H. Renfro and her daughter at Fort Worth for investigations of the Pennsylvanian rocks of Jack County and the Cretaceous rocks around Fort Worth, where they obtained many interesting fossils. In August Dr. Cooper collected Devonian and Ordovician fossils at Ardmore, Okla., and then continued to Ada, Okla., where he was joined by Dr. C. Lalicker, of the University of Oklahoma, who guided him to numerous localities where free Pennsylvanian fossils are obtainable. At Muskogee he made a fine collection of Mississippian fossils, and from there made a short trip into southern Kansas to collect Pennsylvanian fossils. This is the third season that Dr. Cooper has collected in these fields, and with the 4 tons of blocks containing silicified fossils collected in the Glass Mountains, and many thousand specimens of free Pennsylvanian

fossils obtained this year in north-central Texas and Oklahoma, the Museum now has an important series of Permian and Pennsylvanian fossils.

As the field expedition in vertebrate paleontology into the Upper Cretaceous and Paleocene regions of Utah, under Dr. C. L. Gazin, associate curator, extended well into the present year, only brief mention was made of it in last year's report. The party succeeded in obtaining some unusually good material of the smaller mammals, the most outstanding being the lower jaws and fragmentary parts of the skeleton of the rare *Stylinodon*, and good specimens of the larger forms such as *Hyracliyus* and *Paleosyops*. Other interesting materials are a large slab of turtle remains, which will make an interesting exhibition piece, and a small collection of Paleocene mammals from the Alma formation in western Wyoming.

Starting early in June 1942, C. W. Gilmore, curator of vertebrate paleontology, led a party to explore the Oligocene rocks of eastern Wyoming and western Nebraska, where good progress in the discovery of mammalian remains has already been reported. Mr. Gilmore had as assistant the experienced collector George H. Sternberg, and was accompanied also by Alfonso Segura Paguága, of the Museo Nacional, San José, Costa Rica. The account of operations will be carried in next year's report.

In continuation of former field work in Mexico, Dr. W. F. Foshag, curator of mineralogy and petrology, returned to that country in February, under a cooperative arrangement with the United States Geological Survey and with the Board of Economic Warfare, to direct further strategic-mineral work. At the end of the fiscal year he was still in the field.

From March 17 until May 15, 1942, Dr. Remington Kellogg, curator of mammals, with Watson M. Perrygo, scientific aid, as assistant, was engaged in excavating Rampart Cave, in the lower cliff-forming member of the Middle Cambrian Peasley limestone, on the south side of the lower end of the Colorado River canyon, in the Boulder Dam National Recreational Area, Ariz. This was a cooperative project, undertaken by the Smithsonian Institution and the National Park Service. The latter agency detailed Edward T. Schenk, senior geological foreman, Samuel D. Hendricks, assistant engineer, Dr. Gordon C. Baldwin, archeologist, Ray Poyser, boat pilot, and seven men from the Boulder City Civilian Conservation Corps camp for intervals of varying length to assist in the work. The party obtained skeletal remains of ground sloths, mountain goats, pumas, marmots, skunks, and several species of birds, lizards, and snakes. Part of the cave was left undisturbed as a display for visitors, if it should seem desirable to develop it for that purpose at some time in the future.

MISCELLANEOUS

Visitors.—Curtailment of travel because of the war had less effect than anticipated upon the number of visitors at the various Museum buildings. The total recorded during the year was 2,042,817, as against 2,505,817 for the previous year. The largest attendance for a single month was in August 1941, with 381,952 visitors, and the second largest was in July 1941, with 329,927. The attendance in the four Smithsonian and Museum buildings was as follows: Smithsonian Building, 375,630; Arts and Industries Building, 936,625; Natural History Building, 622,989; Aircraft Building (closed from July to November 6), 107,573.

Publications and printing.—The sum of $34,750 was available during the fiscal year 1942 for the publication of the Annual Report, Bulletins, and Proceedings. Forty-four publications were issued—the Annual Report, 3 Bulletins, 1 part each of Bulletins 50, 82, and 161, 1 separate paper from volume 28 of the Contributions from the United States National Herbarium, and 36 separate Proceedings papers. Titles and authors of these publications will be found in the report on publications, appendix 11.

Volumes and separates distributed during the year to libraries, institutions, and individuals throughout the world aggregated 82,545 copies.

Special exhibits.—Fifteen special exhibits were held during the year under the auspices of various educational, scientific, recreational, and governmental groups. In addition the department of engineering and industries arranged 21 special displays—10 in graphic arts and 11 in photography.

CHANGES IN ORGANIZATION AND STAFF

In the department of anthropology, Dr. T. Dale Stewart succeeded to the curatorship of physical anthropology on April 1, 1942, following the retirement of Dr. Aleš Hrdlička, and Dr. Marshall T. Newman was appointed associate curator on June 22, 1942.

In the department of biology, division of birds, Herbert G. Deignan was advanced to associate curator on February 1, 1942, and S. Dillon Ripley, 2d, was appointed assistant curator on March 13, 1942. In the division of mammals, Dr. David H. Johnson was appointed associate curator on August 18, 1941. On February 1, 1942, Dr. Egbert H. Walker was reallocated to assistant curator, division of plants.

In the department of geology, the division of physical and chemical geology (systematic and applied) and the division of mineralogy and petrology were combined under the title of division of mineral-

ogy and petrology, with Dr. William F. Foshag as curator and Edward P. Henderson as associate curator. The division of stratigraphic paleontology became the division of invertebrate paleontology and paleobotany, with Dr. Charles E. Resser as curator and Dr. G. Arthur Cooper as associate curator. These changes were effective June 17, 1942.

On March 1, 1942, the following members of the staff were advanced to associate curator: In the department of anthropology, J. E. Weckler, Jr., and Waldo R. Wedel; in the department of biology, Doris M. Cochran, R. E. Blackwelder, C. R. Shoemaker, and Harald A. Rehder; in the department of geology, C. Lewis Gazin; in the department of engineering and industries, Paul E. Garber, William N. Watkins, and A. J. Olmsted. On the same date, B. O. Reberholt, of the division of mineralogy and petrology, was made senior scientific aid.

On February 1, 1942, Mrs. Leila F. Clark was appointed librarian of the Smithsonian Institution, in the position made vacant through the retirement of William L. Corbin, and Elisabeth P. Hobbs was advanced to associate librarian on May 21, 1942.

Honorary appointments were conferred on W. W. Taylor, Jr., as collaborator in the department of anthropology, July 1, 1941; on Dr. Aleš Hrdlička, as associate in anthropology, April 1, 1942; and on Dr. Henry Pittier, as associate in botany, September 25, 1941.

The following employees were furloughed indefinitely for military service: Clyde E. Bauman, January 22, 1942; Stephen C. Stuntz, March 9, 1942; Shallie Youngblood, May 20, 1942; and Earl W. Cook, May 24, 1942.

Employees who left the service through the operation of the retirement act were as follows: For age, Dr. Aleš Hrdlička, curator, on March 31, 1942, with 38 years 11 months of service; Joseph P. Germuiller, guard, on December 8, 1941, with 23 years 3 months of service. Through optional retirement: Fred Kaske, scientific aid, with 39 years 11 months of service, on May 31, 1942, and Samuel P. Darby, guard, with 33 years 7 months of service, on May 31, 1942. Through disability retirement: William H. Smith, lieutenant of the guard, on December 31, 1942; Robert G. Tegeler, guard, on October 1, 1941; Thomas J. Shannon, guard, on November 14, 1941; and Arthur O. Wickert, under mechanic (electrician's helper), on January 31, 1942.

The honorary appointments of W. L. McAtee, acting custodian, section of Hemiptera, and of W. W. Taylor, Jr., collaborator in anthropology, terminated on June 30, 1942.

The Museum lost through death 3 active workers: Joseph R. Riley, associate curator, division of birds, on December 17, 1941; William

H. Bray, preparator, department of anthropology, on December 18, 1941; Jacob C. Earnhart, guard, on February 10, 1942; and 5 honorary members of the staff who were long associated with its activities: Dr. Charles Branch Wilson, honorary collaborator in copepods, division of marine invertebrates, on August 18, 1941; Dr. Hugh M. Smith, associate in zoology, on September 28, 1941; Dr. Casey Albert Wood, collaborator, division of birds, on January 26, 1942; Dr. C. Hart Merriam, associate in zoology, on March 19, 1942; and Dr. William Schaus, honorary assistant curator of insects, on June 20, 1942.

Respectfully submitted.

ALEXANDER WETMORE, *Assistant Secretary.*

DR. C. G. ABBOT,
Secretary, Smithsonian Institution.

APPENDIX 2

REPORT ON THE NATIONAL GALLERY OF ART

SIR: I have the honor to submit, on behalf of the Board of Trustees of the National Gallery of Art, the fifth annual report of the Board covering its operations for the fiscal year ended June 30, 1942. This report is being made pursuant to the provisions of the act of March 24, 1937 (50 Stat. 51), as amended by the public resolution of April 13, 1939 (Pub. Res. No. 9, 76th Cong.).

ORGANIZATION AND STAFF

During the fiscal year ended June 30, 1942, the Board was comprised of the Chief Justice of the United States, Harlan F. Stone, who succeeded the Honorable Charles Evans Hughes as Chief Justice and took office on July 3, 1941; the Secretary of State, Cordell Hull; the Secretary of the Treasury, Henry Morgenthau, Jr.; and the Secretary of the Smithsonian Institution, Dr. C. G. Abbot, ex officio; and five general trustees, David K. E. Bruce, Duncan Phillips, Ferdinand Lammot Belin, Joseph E. Widener, and Samuel H. Kress.

At its annual meeting held February 9, 1942, the Board reelected David K. E. Bruce, President, and Ferdinand Lammot Belin, Vice President of the Board, to serve the ensuing year. The executive officers continuing in office during the year were Donald D. Shepard, Secretary-Treasurer and General Counsel; David E. Finley, Director; Harry A. McBride, Administrator; John Walker, Chief Curator; and Macgill James, Assistant Director. At the annual meeting the Board elected Chester Dale of New York as an honorary officer of the Gallery, giving him the title of Associate Vice President. At a meeting of the Board held December 29, 1941, the Board provided for the appointment of Otto R. Eggers and Daniel P. Higgins, constituting the firm of Eggers & Higgins of New York, as consultant architects for the National Gallery of Art. During the year, George T. Heckert was appointed Assistant Administrator, such appointment being made possible because of the reclassification of his office by the Civil Service Commission.

Also at the annual meeting the Board, pursuant to its bylaws, constituted its three standing committees as follows:

EXECUTIVE COMMITTEE

Chief Justice of the United States, Harlan F. Stone, chairman.
David K. E. Bruce, vice chairman.
Secretary of the Smithsonian Institution, Dr. C. G. Abbot.
Ferdinand Lammot Belin.
Duncan Phillips.

FINANCE COMMITTEE

Secretary of the Treasury, Henry Morgenthau, Jr., chairman.
David K. E. Bruce, vice chairman.
Secretary of State, Cordell Hull.
Ferdinand Lammot Belin.
Samuel H. Kress.

ACQUISITIONS COMMITTEE

David K. E. Bruce, chairman.
Ferdinand Lammot Belin, vice chairman.
Duncan Phillips.
Joseph E. Widener.
David E. Finley, ex officio.

All positions with the Gallery, with the exception of the executive and honorary officers, are filled from the registers of the United States Civil Service Commission or with its approval. By June 30, 1942, the permanent Civil Service staff numbered 234 employees. Since the opening of hostilities, 12 members of the staff had joined the armed forces.

APPROPRIATIONS

For salaries and expenses, for the upkeep and operation of the National Gallery of Art, the protection and care of the works of art acquired by the Board, and all administrative expenses incident thereto, as authorized by the act of March 24, 1937 (50 Stat. 51), as amended by the public resolution of April 13, 1939 (Pub. Res. No. 9, 76th Cong.), the Congress appropriated for the fiscal year ending June 30, 1942, the sum of $533,300, to cover the first full year of operation. From this appropriation the following expenditures and encumbrances were made:

EXPENDITURES AND ENCUMBRANCES

Personal services	$353,583.22
Printing and binding	6,880.70
Supplies and equipment, etc.	133,087.18
Reserve	36,080.00
Unencumbered balance	3,668.90
Total	533,300.00

ATTENDANCE

The total attendance for the first year during which the National Gallery was open was 2,005,328, a daily average of over 5,500 visitors.

A unique record for museum attendance was established on July 7, 1941, when the one millionth visitor entered the Gallery, less than 4 months after its dedication. The Gallery is open to the public each week day of the year between the hours of 10 a. m. and 5 p. m., except for Christmas and New Year's Day, and on Sundays from 2 until 5 p. m.

On June 7, 1942, the Gallery inaugurated an experimental series of Sunday evening openings, primarily for the benefit of men in the armed forces and war workers in the city. The exhibition galleries were open from 2 to 10 p. m., and orchestral concerts during the summer months were given, through the generosity of Chester Dale, from 7:15 to closing time. Special lectures with color slides were given by the Gallery staff at 7:30 and 8:30 in the lecture hall, and the cafeteria in the Gallery building was open from 4 to 8. Each Sunday evening from 50 to 75 service men were invited by members of the staff and by friends of the Gallery to supper in the cafeteria. On Sundays the attendance frequently exceeded 8,000; and, in view of the popularity of the Sunday evening openings, it was decided to continue the arrangement indefinitely.

Through the generosity of Mrs. Matthew John Whittall, the Gallery presented in the lecture hall on the ground floor, a concert by the Budapest String Quartet on Sunday afternoon, May 31, 1942. This concert had been planned for men in the Service and their friends, the program lasting approximately 1 hour.

PUBLICATIONS

In the information rooms in the Gallery building, a general information booklet is given without charge to visitors on request. It contains a short survey of the collections and information which has been found to be of great assistance to visitors to the Gallery. Also available, are catalogs of the paintings and sculpture, a complete book of illustrations of all the works of art in the Gallery's collection, color reproductions, and postcards in color and black and white, all made available through the Publications Fund. These publications are on sale at moderate cost.

AIR-RAID PROTECTION

Immediately following the outbreak of hostilities on December 7, 1941, the National Gallery building was blacked out nightly. The staff was organized into five air-raid services: Fire, police (including morale), health (first aid), maintenance, and evacuation. Drills were started and repeated frequently in order that the units might operate smoothly in the event of an actual air raid. Drills that were held in coordination with the District of Columbia authorities, when

visitors were in the building, evidenced the measure of efficiency which had been reached by the protective organization in the Gallery. Purchases of air-raid protection equipment were also made as promptly as possible and to the extent permitted by the great demand for such equipment.

REMOVAL OF WORKS OF ART TO A PLACE OF SAFEKEEPING

At a special meeting held December 29, 1941, the Board approved the recommendations of the executive officers of the Gallery that a limited number of the most fragile and irreplaceable works of art in the national collection be removed to a place of greater safety, in view of the responsibility which rests with the Trustees for safeguarding the collection. Early in January, therefore, the paintings and sculpture to be evacuated were removed from exhibition and shipped under guard to the place of safety which had been determined upon and adapted for the purpose. All of the works of art arrived in excellent condition. While thus in storage, they are under constant guard by members of the National Gallery guard force and under supervision and inspection by a member of the curatorial staff of the Gallery.

Beyond this partial evacuation, however, it was the expressed belief of the Trustees that the Gallery has a duty to the public (as a unit of the Government establishment), and an obligation as a source of recreation and education to continue its activities, and even increase them, as far as practicable, in wartime.

ACQUISITIONS

GIFTS OF PRINTS

On February 9, 1942, the Board of Trustees accepted from Philip Hofer a woodcut, "Saint Sebastian," by Hans Baldung (Grien), to be added to his earlier gift of prints which was included in last year's Annual Report; and again on April 27, 1942, the Board accepted a gift of 58 prints from Miss Elisabeth Achelis.

GIFTS OF PAINTINGS AND SCULPTURE

On September 8, 1941, the Board of Trustees accepted from Mr. and Mrs. Peter H. B. Frelinghuysen the gift of two paintings by Goya:

Portrait of Dona Bartolome Sureda
Portrait of Dona Teresa Sureda

both given in memory of Mrs. Frelinghuysen's mother and father, Mr. and Mrs. H. O. Havemeyer. These paintings are now on exhibition.

On February 9, 1942, the Board of Trustees accepted from Duncan Phillips, a Trustee of the Gallery, the gift of a portrait of former Chief Justice Hughes, first Chairman of the Board, painted by Augustus Vincent Tack, which has been hung in the Board Room.

On February 9, 1942, the Board accepted from Mrs. Ralph Harman Booth, the gift of the following pieces of sculpture, given in memory of her husband:

Greek (fourth century B. C.)	Head of a Youth.
Middle Rhenish School	Pieta.
Nottingham School	Painted alabaster, Christ supported by an Angel.

On April 27, 1942, the Board of Trustees accepted from Mr. and Mrs. George W. Davison the gift of a portrait of George Washington by Rembrandt Peale.

Also, on April 27, 1942, the Board accepted from Mrs. Gordon Dexter the gift of two paintings by John Singleton Copley:

Red Cross Knight
Portrait of Sir Robert Graham

The paintings have been received and are now on exhibition.

On April 27, 1942, the Board accepted from Mrs. John W. Simpson the gift of a group of paintings, drawings, and sculpture. Included in the gift are two paintings, one entitled "Soap Bubbles," by Jean-Baptiste-Simeon Chardin, and the other, "The Binning Children," by Sir Henry Raeburn, the latter presented in memory of the late John Woodruff Simpson. The 11 drawings and 13 pieces of sculpture by Auguste Rodin constitute a unique collection acquired by the donor some 40 years ago directly from the artist. The Clodion terra-cotta plaque also served as a model for the decoration of one of the monumental urns by Clodion now in the Gallery.

SALE OR EXCHANGE OF WORKS OF ART

During the year no works of art belonging to the Gallery were sold or exchanged.

LOAN OF WORKS OF ART TO THE GALLERY

During the year the following works of art were received on loan:

From Copley Amory of Washington, D. C.:

Artist	*Subject*
John Singleton Copley	The Copley Family
Do	Self-portrait
Do	Portrait of Elisabeth Copley
Henry William Pickersgill	Portrait of John Singleton Copley, Jr.
John Singleton Copley	Red crayon drawing of a hand

From Chester Dale, of New York, 126 important paintings of the French nineteenth-century school and other schools of painting, together with 31 French drawings.

Through the French Government from museums and private collectors in Europe, 154 paintings of the French school of the late eighteenth and nineteenth centuries. In addition, this loan has been supplemented by 101 French drawings which have not yet been placed on exhibition.

From the heirs of the late Right Reverend William Lawrence a portrait of their ancestor, Amos Lawrence, by Chester Harding.

From the J. H. Whittemore Co., of Naugatuck, Conn., 24 French and American paintings from the Harris Whittemore collection. The following paintings from the collection have been placed on exhibition:

Artist	*Subject*
Edgar Degas	The Rehearsal
Auguste Renoir	Nude in Landscape
Do	Girl with a Cat
J. A. McN. Whistler	The White Girl
Do	The Sea
Do	L'Andalusienne

LOAN OF WORKS OF ART RETURNED

During the year the following works of art which had been placed on loan at the Gallery were returned:

To Duncan Phillips, a Trustee of the Gallery, two paintings previously loaned by him:

Artist	*Subject*
Camille Corot	The Dairy Farm
Gustave Courbet	Rocks at Ornans, Afterglow

LOAN OF WORKS OF ART BY THE GALLERY

During the year no works of art, belonging to the Gallery, were placed on loan.

EXHIBITIONS

The following exhibitions were held at the National Gallery during the last year:

An exhibition, entitled "The Great Fire of London, 1940," of 107 paintings and drawings of wartime London by artists serving in the London Auxiliary Fire Service, was shown in the Gallery from July 18 through August 10, 1941. Sponsored by the British Government under the auspices of the British Library of Information, this exhibition—selected by Sir Kenneth Clark, Director of the National Gallery, London; Sir Walter W. Russell, R. A., Keeper of the Royal Academy; and J. B. Mason, former Curator of the Tate Gallery,

London—after the completion of its first showing in the United States at the National Gallery, toured the United States and Canada.

Seventy paintings and drawings, and sculpture, representing the art of Australia from 1788 to 1941, were placed on exhibition at the Gallery from October 2 to 26, 1941. These works of art, the first comprehensive exhibition of Australian art to be shown in the United States, were sent, under the auspices of the Carnegie Corporation of New York, by the Commonwealth of Australia.

Architectural drawings of the National Gallery building, together with progress photographs and a model of the exterior of the building, showing the development of the building from the first sketch to the final drawings, were loaned by Eggers & Higgins, the architects, for exhibition at the Gallery from December 18, 1941, to January 28, 1942. The A. W. Mellon Educational and Charitable Trust, to augment the exhibition, loaned a number of renderings and photographs of the progress of the building from their own records.

Two groups of American water colors, drawings and prints—"American Artists' Record of War and Defense" and "Soldiers of Production"—were shown at the National Gallery; the former from February 7 to March 8, 1941, and the latter from March 17 to April 15, 1942. The water colors in the first group had been submitted in national competition for pictures recording war and defense activities, conducted by the Section of Fine Arts for the Office for Emergency Management, and most of them were purchased by the United States Government after selection by the appointed jury. Those in the second group were water colors and drawings by eight artists appointed on recommendation of the Section of Fine Arts by the Office for Emergency Management and who, through the courtesy of the War and Navy Departments, were permitted to make drawings and paintings of what is known as restricted material.

The Citizens Committee for the Army and Navy, Inc., exhibited at the Gallery for a period of approximately 2 weeks, beginning April 8, 1942, three triptychs by contemporary artists, which had been selected by the Committee for later presentation to the Chapel at Arlington Cemetery, Va.

An exhibition of paintings, posters, water colors, and prints, showing activities of the American Red Cross, were exhibited from May 2 to 30, 1942. These paintings were submitted in a national competition conducted for the American Red Cross by the Section of Fine Arts, Public Buildings Administration, Federal Works Agency. The exhibition included the paintings which were purchased for the Red Cross on advice of a jury, together with a group of other pictures also recommended by the jury for exhibition.

An exhibition of 11 portrait busts of the Presidents of the Republics of South America, by the American sculptor, Jo Davidson, was

held in the west garden court at the National Gallery of Art, beginning Saturday afternoon, June 27, and continuing for about a month. These busts were commissioned by the Office of the Coordinator of Inter-American Affairs and will be presented to the Governments of the South American Republics by the Department of State of the United States of America. Portrait busts in bronze, also by Jo Davidson, of President Franklin Delano Roosevelt and Vice President Henry A. Wallace, were shown at this time.

CURATORIAL DEPARTMENT

The curatorial work for the year consisted in the rearrangement of the permanent collection necessitated by additional gifts and by various precautions that were required by the outbreak of the war; in the installation of 17 temporary exhibitions; in various lectures on the collection and related fields in conjunction with the work of the educational department; and in further cataloging of the paintings and sculpture. During the year the preliminary Catalog of the Permanent Collection and the Book of Illustrations were brought up to date and reprinted; two catalogs containing a historical survey, notes, and bibliography of the French paintings loaned from the Chester Dale collection were compiled, and a new general information pamphlet was prepared.

In the course of the year, 209 works of art were submitted to the acquisitions committee with written recommendations regarding their acceptability for the collection of the National Gallery of Art; 40 private collections were visited in Washington and other cities in connection with offers to the Gallery of gifts or loans; 152 works of art were brought to the Gallery and submitted to the staff for expert opinion; and 44 letters were written in answer to inquiries involving research in the history of art.

RESTORATION AND REPAIR OF WORKS OF ART

During the year, as authorized by the Board and with the approval of the Director and Chief Curator, Stephen Pichetto, consultant restorer to the Gallery, has undertaken such restoration and repair of paintings and sculpture in the collection as has been found to be necessary. All of this work was carried on in the restorer's rooms in the Gallery except in three cases, once when unusually delicate and complicated restoration was required, and twice when the pictures had to be relined to prevent damage in shipment from New York. These three paintings were restored in Mr. Pichetto's studios in New York.

EDUCATIONAL PROGRAM

As indicated in the following summary, public response to the program of educational activities of the Gallery has constantly increased month by month until the total attendance recorded for June, 1942 (6,384), more than doubled that recorded for July, 1941 (2,882).

A basic part of the Gallery's educational program has been the gallery tours of the collection, conducted twice daily, except on Saturday and Sunday, which have attracted 18,935 visitors. In addition to these tours there has been a series of special lectures: a special program of 34 lectures, beginning in October and continuing through April, presented a special lecture each Saturday afternoon in the lecture hall, which 7,292 persons attended, and the intimate "gallery talks" and other lectures presented in the auditorium, dealing with a specific school or works of art, attracted a combined total of 17,752.

The educational department feeling the need for a short noontime feature, in view of the increased number of visitors from nearby Government buildings during this time, inaugurated on January 2, 1942, the "Picture of the Week," a 15-minute talk given twice each day and once on Sunday, which in turn attracted 7,947 people, indicating that this educational feature of the program was one of the most popular.

In addition, members of the educational department staff have conducted private and group conferences, totaling 3,065 individuals, of which 700 were members of the armed forces for whom special tours were arranged on Saturday afternoon, beginning in December 1941.

LIBRARY

A total of 242 books and 1,087 pamphlets and periodicals were presented to the Gallery; 962 books and catalogs were acquired through exchange; 37 books and catalogs were purchased; and 20 books were received on indefinite loan.

PHOTOGRAPHIC DEPARTMENT

Prints totaling 6,094, 1,187 black and white slides, and 709 color slides have been made by the photographic laboratory. The prints have been placed on file in the Library where they are for sale and for the use of the Gallery staff. The slides, together with an additional 420 which were purchased during the year, have been made available for the staff in connection with the public lectures given at the Gallery, and have likewise been lent to lecturers outside the National Gallery and to other galleries.

THE GALLERY BUILDING

During the fiscal year, certain alterations and improvements have been made in the building upon the recommendation of the committee on the building, among which may be mentioned the construction of snow steps for the Mall entrance, the redecoration of gallery rooms for the exhibition of the Chester Dale collection, and additional air conditioning in the smoking room and the information rooms on the main and ground floors. The National Gallery Cafeteria has become so popular that it is somewhat congested during certain hours of the day. It became evident that some acoustical treatment of the ceiling should be undertaken, and this work, resulting in great improvement in the noise condition in the cafeteria, was completed with funds supplied by The A. W. Mellon Educational and Charitable Trust. It was also recommended that a revolving door be installed to replace one of the heavy bronze doors at the Constitution Avenue entrance. Although funds were made available it was not possible to proceed with this improvement because the materials required were restricted by priority rulings.

OTHER GIFTS

During the year there were gifts to the Gallery of furnishings, equipment, ornamental trees and plants, prints, films, and color slides; also certain expenses were paid by others on behalf of the Gallery, the donors being David K. E. Bruce, Frederick T. Bonham, William R. Coe, David E. Finley, Samuel H. Kress, Donald D. Shepard, Percy S. Strauss, Mr. and Mrs. J. L. McGrew, Mrs. Matthew John Whittall, Coordinator of Inter-American Affairs, Propagating Gardens of the Department of the Interior, American Red Cross, and The A. W. Mellon Educational and Charitable Trust. Gifts of moneys were made to the Gallery during the year by Paul Mellon, Chester Dale, Howard J. Heinz, Jr., and The A. W. Mellon Educational and Charitable Trust.

AUDIT OF PRIVATE FUNDS OF THE GALLERY

An audit has been made of the private funds of the Gallery for the year ended June 30, 1942, by Price, Waterhouse & Co., a nationally known firm of public accountants, and the certificate of that company on its examination of the accounting records maintained for such funds has been submitted to the Gallery.

Respectfully submitted.

DAVID K. E. BRUCE, *President.*

Dr. C. G. ABBOT,
Secretary, Smithsonian Institution.

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APPENDIX 3

REPORT ON THE NATIONAL COLLECTION OF FINE ARTS

SIR: I have the honor to submit the following report on the activities of the National Collection of Fine Arts for the fiscal year ended June 30, 1942:

After Pearl Harbor plans were made for the protection of the works of art in the National Collection of Fine Arts. The center portion of the wall behind the large painting "Diana of the Tides," by John Elliott, was strengthened sufficiently to resist bomb fragments. Protection against damage from incendiary bombs has been provided, but means have not yet been devised to prevent such bombs from reaching the ground floors where the exhibits are shown. Plans for packing and shipping paintings for evacuation have been made, and the miniatures and part of the Gellatly collection are to be moved to the ground-floor lobby, where they would be protected against incendiary bombs.

Several proffered gifts of paintings, furniture, miniatures, and vases have been deposited here to be passed upon by the Smithsonian Art Commission in December 1942.

Eight special exhibitions were held in the foyer, including three under the sponsorship of the Pan American Union and the Ministers of the various countries, involving the installation of 428 specimens. Nine special Graphic Arts exhibits were shown in the lobby.

From July 10 to 27, 1941, the Acting Director visited galleries and private collections between Washington and Boston for the purpose of studying various collections of American miniatures.

An illustrated lecture on the National Collection of Fine Arts was given by the Acting Director before the Chevy Chase Women's Club on November 11, 1941.

A painting, "The First Reading of the Emancipation Proclamation," by Francis B. Carpenter, 9 feet x 14 feet 6 inches, was cleaned and restored at the United States Capitol.

APPROPRIATIONS

For the administration of the National Collection of Fine Arts by the Smithsonian Institution, including compensation of necessary

employees, purchase of books of reference and periodicals, traveling expenses, uniforms for guards, and necessary incidental expenses, $29,880.14 was appropriated, of which over $18,000 was expended for the care and maintenance of the Freer Gallery of Art, a unit of the National Collection of Fine Arts. The balance was spent for the care and upkeep of the National Collection of Fine Arts, nearly all of this sum being required for the payment of salaries, traveling expenses, purchase of books and periodicals, and necessary disbursements for the care of the collection.

THE SMITHSONIAN ART COMMISSION

The twenty-first annual meeting of the Smithsonian Art Commission was held on December 2, 1941. The members met at 10:30 a. m. in the Natural History Building, where, as the advisory committee on the acceptance of works of art which had been submitted during the year, they accepted the following:

Oil painting, "Portrait of My Wife," by Louis Betts, N. A. Gift of Mrs. Louis Betts (Zara Symons Betts).

Oil painting, "Stable Interior, Horses and Groom," by John F. Herring (1795–1865). Gift of John E. Lodge.

Oil painting, "Portrait of Lieut. Gen. Henry Clark Corbin (1842–1909)," by Adolph Muller-Ury (1868–). Gift of Mrs. Henry Clark Corbin.

Oil painting, "The Other Shore," by Robert Spencer, N. A. (1879–1931), assigned to the Newark Museum Association, Newark, N. J., on February 2, 1925, by the Council of the National Academy of Design, which was withdrawn and claimed in accordance with the provision in the Ranger Bequest.

Three miniatures, water color on ivory, "Portrait of A. S. N.," by Jean Francois de la Valle (fl. 1785–1815); "Portrait of Mrs. Elves," attributed to Hone, and "Portrait of Ira Allen (1751–1814)," copy of a miniature in the University of Vermont, by an unknown artist. Gift of Mrs. Norvin H. Green.

Miniature, water color on ivory, "Portrait of Mrs. Bertha E. Jaques (1863–1941)," by Nelly McKenzie Tolman. Bequest of Mrs. Bertha E. Jaques.

Miniature, water color on paper, "Portrait of Rubens Peale (1784–1864)," by Raphael Peale (1774–1825), unframed. Gift of Dr. Edwin Kirk.

Thirty-six prints by 26 members of the Chicago Society of Etchers, to be added to the Chicago Society of Etchers collection. Gift of the Chicago Society of Etchers.

Drypoint, "For All the World," by R. H. Palensky (1884–), to be added to the Chicago Society of Etchers collection. Gift of the artist.

One Japanese Shippo vase and stand. Gift of Dr. and Mrs. H. Foster Bain.

The members then proceeded to the regents' room in the Smithsonian Building for the further proceedings, the meeting being called to order by the chairman, Mr. Borie.

The members present were: Charles L. Borie, Jr., chairman; Frank Jewett Mather, Jr., vice chairman; Dr. Charles G. Abbott (ex officio), secretary; and Herbert Adams, Gifford Beal, David E. Finley, James E. Fraser, John E. Lodge, Paul Manship, Edward W. Redfield, and

Mahonri M. Young. Ruel P. Tolman, curator of the division of graphic arts in the United States National Museum and acting director of the National Collection of Fine Arts, was also present.

Three persons were nominated to succeed the late Col. George B. McClellan, and the secretary was directed to correspond with them in the order they were nominated to ascertain their willingness to serve as a member of the Commission.

The Commission recommended to the Board of Regents the reelection of Mahonri M. Young, Charles L. Borie, Jr., Frederick P. Keppel, and the nominee selected to fill Colonel McClellan's place.

The following officers were reelected for the ensuing year: Charles L. Borie, Jr., chairman; Frank Jewett Mather, Jr., vice chairman, and Dr. Charles G. Abbot, secretary.

The following were reelected members of the executive committee for the ensuing year: Herbert Adams, Gilmore D. Clark, John E. Lodge, Charles L. Borie, Jr. (ex officio), and Dr. Charles G. Abbot (ex officio).

The chairman brought to the attention of the Commission the matter of the proposed prohibition of the use of sculptural bronze for castings and, after discussion, resolutions were approved to be sent to the Office of Production Management.

THE CATHERINE WALDEN MYER FUND

Three miniatures, water color on ivory, were acquired from the fund established through the bequest of the late Catherine Walden Myer, as follows:

25. "Portrait of G. D.," by an unknown artist; from Sherman Reilley, New Haven, Conn.

26. "Portrait of a Man," by an unknown artist; from Sherman Reilley, New Haven, Conn.

27. "Mr. Nichol," by John Wesley Jarvis (1780–1840), signed "Jarvis 1809 N York"; from Mrs. Dora Lee Curtis, New York City.

LOANS ACCEPTED

Two miniatures, water color on ivory, "Roswell Shurtleff (1773–1861)" and "Anna Pope Shurtleff (1812–1881)," daughter of Roswell Shurtleff, by unknown artists, were lent by Mrs. O. A. Mechlin, through Miss Leila Mechlin.

One miniature, water color on ivory, "Captain Frederick Augustus Smith, U. S. A. (1812–?)," by Caroline Dorcas (Smith) Murdoch, was lent by Miss Leila Mechlin.

One miniature, water color on ivory, "Portrait of a Boy," by Joseph Wood (ab. 1780–1830), was lent by Miss Sarah Lee.

An oil painting, "The Right Honorable Winston Churchill," by Hal Denton, presented to the President of the United States by the

Mayor and the Council of Vancouver, British Columbia, Canada, was lent by the President of the United States, Franklin D. Roosevelt.

LOANS TO OTHER MUSEUMS AND ORGANIZATIONS

An oil painting, "The Visit of the Mistress," by Winslow Homer, was lent to the Howard University Gallery of Art to be included in an exhibition of "Paintings Showing Negroes in America" from March 2 through April 12, 1942. (Returned April 17, 1942.)

WITHDRAWALS BY OWNERS

An oil painting, "Portrait of Mr. Justice Brandeis," by Joseph Tepper, was withdrawn on the order of Paul A. Freund and returned to Joseph Tepper, the owner, on November 3, 1941.

An oil painting, "Portrait of Lady Evelyn Cook," by John Hoppner, R. A., was withdrawn by Thomas Davis Lee, administrator of the estate of Mrs. Arthur Lee, on February 13, 1942.

Three oil paintings, "Portrait of a Boy," by John Hoppner, R. A.; "Portrait of a Girl," by John Opie, R. A.; and "Study of Ruins," by Richard Wilson, R. A., were withdrawn from the collection lent by the estate of Henry Cleveland Perkins by the owner, Miss Ruth Perkins, on March 12, 1942.

Two miniatures, water color on ivory, "Virginia Casterton" and "Mme. Tamakai Miura," by Eda Nemoede Casterton, were withdrawn by the owner, Mrs. Casterton, on May 26, 1942.

LOANS RETURNED

Three pieces of sculpture by Edward Kemeys, "Fighting Panther and Deer" (bronze), "Bronze Wolf" (No. 3), and "Bronze Wolf" (No. 4), lent with the consent of their owner, William Kemeys; "Grizzly Bear" (plaster No. 28), the property of the Smithsonian Institution, and a blue Sevres vase (Pell Collection No. 371), with a wooden base, lent to the Procurement Division of the United States Treasury on May 2, 1938, to be placed in the Reception Room, Union Station, were returned December 18, 1941.

THE NATIONAL COLLECTION OF FINE ARTS REFERENCE LIBRARY

Because of the transfer of the librarian, Mrs. Lucile T. Barrett, to Mobile, Ala., in February 1942 there is no report of details available, as a new librarian has not been appointed.

SPECIAL EXHIBITIONS

The following exhibitions were held:

August 1 through September 30, 1941.—Exhibition of 92 miniatures lent by Count and Countess Bohdan de Castellane, of Washington, D. C.

December 5 through 31, 1941.—Exhibition of 23 oils and 20 water colors by Roy M. Mason, N. A., of Woodchuck Hollow, Batavia, N. Y.

January 7 through 31, 1942.—Exhibition of 26 oils and 38 prints and drawings, by Antonio Rodriguez Luna, of Mexico, sponsored by the Mexican Ambassador and the Pan American Union.

January 15 through March 1, 1942.—Exhibition of 54 pieces of jade lent by Georges Estoppey, of Newark, N. J.

February 8 through 27, 1942.—Exhibition of 20 paintings on metal and 4 prints by Buell Mullen of Lake Forest, Ill.

April 5 through 28, 1942.—Exhibition of 80 oils, 36 water colors and 5 prints, by members of the Landscape Club of Washington, D. C.

May 12 through 28, 1942.—Exhibition of 15 plaster busts by Marina Nuñez del Prado of Bolivia, sponsored by the Bolivian Minister and the Pan American Union.

June 1 through 28, 1942.—Exhibition of 17 oil paintings and 37 pencil drawings, lithographs, and water colors, by Ignacio Aguirre, of Mexico, sponsored by the Mexican Ambassador and the Pan American Union.

PUBLICATIONS

TOLMAN, R. P. Report on the National Collection of Fine Arts for the year ended June 30, 1941. Appendix 3, Report of the Secretary of the Smithsonian Institution for the year ended June 30, 1941, pp. 45–50.

LODGE, J. E. Report on the Freer Gallery of Art for the year ended June 30, 1941. Appendix 4, Report of the Secretary of the Smithsonian Institution for the year ended June 30, 1941, pp. 51–55.

Respectfully submitted.

R. P. TOLMAN, *Acting Director.*

DR. C. G. ABBOT,
Secretary, Smithsonian Institution.

APPENDIX 4

REPORT ON THE FREER GALLERY OF ART

SIR: I have the honor to submit the twenty-second annual report on the Freer Gallery of Art for the year ended June 30, 1942.

THE COLLECTIONS

Additions to the collections by purchase are as follows:

BRASS

42.8. Persian, dated 1127 (A. D. 1715). Made by 'Abd-al-A'immah. Astrolabe. A northern instrument fitted with a ring and handle for suspension, a rete or *'ankabūt*, three sexpartite tablets, an alidade equipped with sights, a pin and a bolt. Inscriptions, including signature, in *naskhī* script. Diameter: 0.129.

41.10 Syrian (Damascus?), mid-thirteenth century. Mōṣul school. A canteen with a pit in one side and a strainer in the neck. The outer surfaces are decorated with designs of both Christian and Islamic origin executed in silver inlay, and include inscriptions written in Kufic and in *naskhī* scripts. Height: 0.447; diameter: 0.335; depth: 0.213.

BRONZE

41.9. Chinese, late Chou dynasty, circa 500–300 B. C. A large bell, with two confronted bird forms on the top. Decoration in slight relief, details incised. Gray-green patination. 0.663 x 0.470 over all.

42.1. Chinese, early Chou dynasty, twelfth–eleventh century B. C. A ceremonial vessel of the type *huo*, with a cover in the form of a human face with horns. Patination: outside, gray green with sparse malachite incrustations; inside, gray, gray-green, malachite, cuprite, azurite, and calcareous deposit. 0.182 x 0.210 over all. (Illustrated.)

JADE

42.6. Chinese, early Chou dynasty or earlier. A pointed implement for loosening knots; pierced for suspension. Somewhat translucent pale gray-green nephrite with pale tan mottling. The handle carved in silhouette and countersunk linear relief to represent a long-haired human figure seen in profile. Length: 0.106 over all.

MANUSCRIPT

42.3–42.4. Arabic, thirteenth century. Two leaves from a *Qur'ān*. The text is written in *naskhī* script, which is drawn in black outline and filled in with gold; vowels and orthographical signs in blue and (oc-

casional) red. Illuminated verse-stops and marginal ornaments. Paper leaves: 0.435 x 0.345.

PAINTING

42.10. Arabic (Northern Mesopotamia), A. D. 1315. Āmida. An illustration from a copy of al-Jazarī's treatise on automata, *Kitāb fi ma'arifat al-ḥiyal al-handasīya:* the face of the water clock called "The Clock of the Drummer." Painted in full color and gold; text in black *naskhī* script. Paper leaf: 0.308 x 0.215. (One of a set: 30.71–77, 42.10.)

42.7. Chinese, Ming dynasty. By Ni Yüan-lu (1593-1644). Six flower sprays. Ink on paper. Seven inscriptions, 10 seals. Signature. Makimono: 0.269 x 3.136.

42.11–42.12. Persian, thirteenth–fourteenth century. Two leaves from a *Shāhnāmah* with illustrations painted in color and slight gold as follows:

42.11. Rustam confronting the Turanian, Pilsam; horsemen on a red ground. 0.099 x 0.240.

42.12 Kai Khusraw crossing the water of Z'rih. 0.133 x 0.241.

Text in a delicate *naskhi* script. Paper leaves (trimmed): 0.370 x 0.303; 0.370 x 0.301.

42.1 Persian, Mongol (Īl-Khān) period, fourteenth century. Tabrīz school. An illustration from a *Shāhnāmah:* Shāh Nūshīrwān bestows largess upon his minister Būzurjmihr. Painted in full color and gold. Text in black *naskhī* script, titles in gold on blue and red grounds. Paper leaf: 0.412 x 0.295; painting: 0.185 x 0.196. (One of a set: 23.5, 30.78, 30.79, 35.23, 35.24, 38.3, 42.2.) (Illustrated.)

POTTERY

41.12. Arabic (Egypt) tenth–eleventh century (?). Fatimid period. A large, wide-rimmed dish; bold foot-ring (broken, repaired and, in places, restored). Body of soft, white clay, covered with an opaque cream-white glaze. Decoration painted in gold luster with iridescent reflections. Kufic inscriptions; potter's mark underneath. 0.383 (diameter). (Illustrated.)

42.5. Mesopotamian, Baḳḳa, twelfth-thirteenth century. A shallow bowl with broad everted rim; bold foot-ring (one perforation). Soft, sandy, white clay covered with a transparent, greenish-white glaze; areas of pearly iridescence due to decay. Decoration painted over glaze in golden-brown luster; four spots of turquoise blue. Two *naskhī* inscriptions, one partly lost under iridescence. 0.075 x 0.259 (diameter).

41.11. Persian, dated 607 (A. D. 1210). Kāshān. Signed by Sayyid Shams-ad-dīn al-Ḥasanī. A plate with scalloped, upright sides and a narrow, grooved rim (broken, repaired and, in places, restored). Body of soft white clay covered with an opaque, cream-white glaze. Decoration painted in golden-brown luster with ruby reflections. Marginal inscription, including the signature and date. 0.037 x 0.352 (diameter).

42.9. Syro-Egyptian, thirteenth century (?). A deep bowl (broken and repaired). Body of soft rosy-buff clay covered with a white slip under a transparent glaze of greenish cast (crazed). Decoration painted in brown on the slip under glaze. 0.080 x 0.194.

The work of the curatorial staff has been devoted to the study and recording of the new acquisitions listed above, and to other Arabic,

COVER 42.1

42.1

A RECENT ADDITION TO THE COLLECTION OF THE FREER GALLERY OF ART.

41.12

42.2

RECENT ADDITIONS TO THE COLLECTION OF THE FREER GALLERY OF ART.

Chinese, Japanese, Persian, Syrian, and Syro-Egyptian art objects either already in the collection or submitted for purchase. Other Arabic, Chinese, East Indian, Japanese, Persian, European, and American objects were sent or brought to the Director by their owners for information as to identity, provenance, quality, date, or inscriptions. In all, 770 objects and 235 photographs of objects were so submitted, and written or oral reports upon them were made. Written translations of 41 inscriptions in oriental languages were made upon request. In addition to this regular curatorial work, much time during the winter and spring has been spent by members of the staff upon work connected with the war.

Two hundred and thirty-six changes were made in exhibition as follows:

American painting	3
American pottery	7
Chinese bronze	129
Chinese gold and iron	4
Chinese silver	2
Chinese silver-gilt	6
Chinese pottery	12
Japanese painting	48
Japanese pottery	24
Syrian brass and silver	1

Repairs to the collection were as follows:

American paintings	15
Chinese bronze	1
Chinese panel painting	1
Chinese jade	1
Japanese screens	3

A scale model of a Japanese print-maker's workshop was made for the Division of Graphic Arts, Smithsonian Institution.

ATTENDANCE

The Gallery has been open to the public every day from 9 until 4:30 o'clock, with the exception of Mondays, Christmas Day and New Year's Day.

The total attendance of visitors coming in at the main entrance was 87,812. Seventy-eight other visitors on Mondays bring the grand total to 87,890. The total attendance on weekdays, exclusive of Mondays, was 57,240; Sundays 30,572. The average weekday attendance was 222 persons; the average Sunday attendance 583. The highest monthly attendance was in August with 13,055 visitors; the lowest in January with 4,417 visitors.

There were 1,223 visitors to the main office during the year. The purposes of their visits were as follows:

For general information	214
To see objects in storage	234
Far Eastern paintings	31
Near Eastern paintings and manuscripts	7
East Indian paintings and manuscripts	12
American paintings	41
Whistler prints	2
Oriental pottery, jade, bronzes, sculpture, lacquer and bamboo	89
Byzantine objects	2
Washington Manuscripts	50
To read in the library	180
To make tracings and sketches from library books	7
To see the building and installation	8
To obtain permission to photograph or sketch	26
To submit objects for examination	141
To see members of the staff	368
To see the exhibition galleries on Monday	19
To examine or purchase photographs	280

LECTURES AND DOCENT SERVICE

One lecture by a staff member was given to a woman's club organization (20 members); 5 groups (total 81 persons) were given instruction in the study room; 1 group (20 persons) was given docent service in storage rooms, and 9 groups (total 190 persons) were given docent service in the exhibition galleries. The total number of persons receiving such services, by request, was 311.

A series of lectures upon air-raid precautions, addressed to Smithsonian and Freer Gallery employees, was given in the auditorium by Kenneth M. Perry of the United States National Museum, June 9, 11, and 13, 1942; total attendance, 97.

PERSONNEL

Grace T. Whitney worked intermittently at the Gallery from November 3, 1941, to June 22, 1942, on the translation of Persian texts.

On March 7, 1942, Margaret B. Arnold resigned as assistant after 2 years of service.

Miss M. Eleanor Morsell was appointed to succeed Miss Arnold on May 1, 1942.

On June 16, after a month's serious illness, occurred the death of Carl Whiting Bishop, associate in archeology. Mr. Bishop became a member of the Gallery staff April 10, 1922, to work in his chosen field of Far Eastern archeology. From 1923 to 1927, and again from

1929 to 1934, Mr. Bishop was in charge of the Freer Gallery field work in China, making reconnaissance studies at neolithic stations in Shansi Province as well as general surveys of burial sites of the historic period. He published numerous articles upon these subjects in various journals, being widely known as an authority on the earlier phases of Chinese culture. His death, at 61, is a matter of deep regret to his colleagues.

Other changes in personnel are as follows:

Appointments: Glen P. Shephard, guard, July 30, 1941; Edith B. Bauer, attendant (intermittent), October 19, 1941; Thomas J. Reynolds, guard, January 14, 1942; V. Lee Turner, attendant (intermittent), February 1, 1942; Florence E. James, attendant (intermittent), May 3, 1942; Alice E. Hall, charwoman, May 7, 1942; Frank M. Murphy, guard, June 6, 1942; Milton V. Harper, attendant (intermittent), June 21, 1942.

Separations from the service: Mary C. Burke, attendant (intermittent), resigned October 1, 1941; Joseph P. Germuiller, guard, retired from active duty December 8, 1941; George W. Grigsby, attendant (intermittent), resigned January 26, 1942; V. Lee Turner, attendant (intermittent), resigned February 27, 1942; James Rice, attendant (intermittent), resigned March 15, 1942; Ollie Smoot, charwoman, resigned March 17, 1942; Edith B. Bauer, attendant (intermittent), resigned April 15, 1942; Oliver W. Puckett, guard, resigned May 26, 1942; Thomas J. Reynolds, guard, resigned June 30, 1942.

Respectfully submitted.

J. E. Lodge, *Director.*

Dr. C. G. Abbot,
Secretary, Smithsonian Institution.

APPENDIX 5

REPORT ON THE BUREAU OF AMERICAN ETHNOLOGY

SIR: I have the honor to submit the following report on the field researches, office work, and other operations of the Bureau of American Ethnology during the fiscal year ended June 30, 1942, conducted in accordance with the act of Congress of April 5, 1941, which provides "* * * for continuing ethnological researches among the American Indians and the natives of Hawaii and the excavation and preservation of archeologic remains. * * *"

During the fiscal year, the energies of the Bureau have been diverted to an increasing extent to activities concerned with the war effort. In particular, members of the Bureau staff have cooperated with the Ethnogeographic Board, and it is expected that diversion of effort in this direction will increase as the war continues. Activities concerned with Latin America have likewise been emphasized.

SYSTEMATIC RESEARCHES

M. W. Stirling, Chief of the Bureau, left Washington for Mexico early in April 1942 in continuation of the program of work for the Smithsonian Institution-National Geographic Society archeological project in southern Mexico. A visit of 2 weeks was made to the site of La Venta in Tabasco, where Dr. Philip Drucker was conducting excavations on the same project. From La Venta, Mr. Stirling went to Tuxtla Gutierrez in Chiapas in order to attend the archeological conference held under the sponsorship of the Sociedad Mexicana de Antropología. While in Chiapas opportunity was taken to visit villages of the Zoque, Tzotzil, and Chamula Indians. A trip was also made to the ancient Maya ruins of Palenque, where a week was spent at the site. Mr. Stirling returned to Washington early in June.

The remainder of the year was spent in Washington administering the affairs of the Bureau and in the preparation of reports dealing with the work in Mexico.

Dr. John R. Swanton, ethnologist, devoted the greater part of the fiscal year to digesting and carding the extant materials in the language of the Timucua Indians of Florida, a language which passed out of existence early in the eighteenth century. He also devoted some time to the revision of a large general paper on the Indians of North

America. This manuscript has not been submitted for publication as, owing to its size, there is little likelihood of its being printed in the near future. A brief paper was prepared on The Evolution of Nations, and this was published in the series of War Background Studies of the Smithsonian Institution.

Dr. Swanton has also continued to serve as the representative of the Institution on the United States Board of Geographical Names.

Dr. John P. Harrington, ethnologist, conducted field work during the year on two problems involving linguistic studies of Aleut, the language of the islands between Asia and America, and of Athapascan, the language of the northern Rockies, of a large part of the Pacific coast, and of the southern deserts. He left Washington in August 1941 to visit the Aleutian Islands, where he was fortunate enough to secure the services of Ivan Yatchmeneff, son of the Unalaska chief. The Aleuts consist of three divisions, popularly known as Unalaskans, Atkans, and Attuans, but all of them are under the Unalaska chief. Working on St. Paul Island, famous as the breeding place of the fur seal, and elsewhere, he made a complete study of the sounds and grammar of the language, with the result that it proved to be a penetrant from the American side, a typically American language of eastern origin, which has penetrated westward never quite to cross the Aleutian Chain. The Unalaska dialect is related to and undoubtedly derived from the language of the Alaska peninsula. The fact that the Chain was occupied by an American language is important because of its possible fundamental relationship to the Athapascan stock of inland Alaska.

A byproduct of the field studies was the obtaining of a probable etymology of the name "Aleut" which differs from those previously offered by other investigators. The name is still pronounced with three syllables in Russian, as Al-e-ut, and is the same as the tribal name "Aglimyut," in modern usage applied to a Bristol Bay tribe. The name of the high hill on St. George Island also omits the interior *m*, just as it is omitted in the word "Aleut." Early Russian usage took over the name with inclusive application, which later became crystallized into application to speakers of the Aleut language alone, although the Kodiak Islanders are still spoken of in Russian and Aleut as the Kodiak Aleuts, even at the present day.

Following the Aleutian work, Dr. Harrington proceeded to British Columbia, where he undertook studies of the relationship of Navaho and Apache with the Athapascan stock of the northernmost Rocky Mountains. This relationship was first reported by Horatio Hale and by William Turner. In British Columbia Dr. Harrington recovered traditions that the Chilcotin language had formerly occupied the Nicola Valley, and was able to obtain a large number of Chilcotin

words in that region, handed down in individual families. Following this lead, he was able to discover individuals who had in their remote youth actually spoken the extinct Kwalhioqua and Tlatskanai dialects of Washington and Oregon, and to recover vocabularies of these with all their original phonetics. He also recorded the tradition that the Upper Umpqua language of what is now the vicinity of Roseburg, Oreg., had come from the Kwalhioqua. The Roseburg language is related to the languages of the Rogue River region of southern Oregon and those of northern California. In confirmation of these findings, he obtained the tradition that the Blue Lake Indians had come from the south bend of the Smith River, far to the north. Dr. Harrington has traced the Chilcotin or Chilco language all the way from Lake Chilcotin, which drains into the Fraser River, to the head of Eel River in northern California. This work has demonstrated that the Eel River language is merely a Chilco dialect which has drifted south. The exact provenience of these southern tongues is Dr. Harrington's present goal.

At the beginning of the fiscal year Dr. Frank H. H. Roberts, Jr., was engaged in archeological excavations at a site on the north rim of the Staked Plains, 10½ miles south of the town of San Jon, N. Mex. These investigations were continued until September 6. The work produced evidence for an interesting sequence of projectile points and other artifact types and new information on some phases of the aboriginal occupation of that portion of the Southwest. The oldest archeological material present was found to be in association with bones from an extinct species of bison and in the same stratum as mammoth remains. Indications are that, although from a different complex, this material probably dates from about the end of the Folsom horizon some 10,000 to 15,000 years ago. Between this level and the next in the series there was a gap of an, as yet, undetermined although appreciable length of time. During this interval the large bison were replaced by a smaller species, the modern buffalo. From the start of the second stage down to protohistoric times there was no break in the occupation of the area investigated, and the points and artifacts were found to progress from forms similar to those found in the Texas area to the east to those commonly associated with late sites in many parts of the country. The specimens from the second level belong to the so-called Yuma category, and the evidence from San Jon indicates that chronologically they are much later than hitherto supposed. The artifacts from the late horizon show that several different Indian groups used that area as hunting territory. In the light of present knowledge, however, it is not possible to identify the specific groups from the artifact types.

In keeping with the Smithsonian Institution's policy of cooperation with and aid to other institutions, Dr. Roberts took leave from July 28 to August 9 to give a series of lectures on Southwestern archeology and to direct student excavations at the University of New Mexico Field Session in the Chaco Canyon, N. Mex. During his absence, the work at San Jon was continued under the supervision of Eugene C. Worman, Jr., of the department of anthropology, Harvard University. From the Chaco Canyon, Dr. Roberts returned to San Jon, and, upon completion of the work there, returned to Washington.

The fall and winter months were spent in regular office routine; in the preparation of a manuscript entitled "Archeological and Geological Investigations in the San Jon District, Eastern New Mexico" for publication in the Smithsonian Miscellaneous Collections; in library researches for information for and sponsoring programs on Carthage, Zebulon M. Pike, and Babylon for "The World Is Yours" broadcasts; in organizing air-raid protection groups for the Smithsonian building and serving as building warden under the Public Buildings Administration Civilian Defense program; and in assisting in the preparation of material for evacuation to storage places outside of Washington.

On June 27 Dr. Roberts left Washington for Newcastle, Wyo., to inspect a site on the Cheyenne River where animal bones and artifacts were reported to be eroding from a gully bank and possible valuable information was in danger of being lost through the action of natural agencies. This investigation was just starting at the close of the fiscal year.

Dr. Julian H. Steward, anthropologist, continued his activities as editor of the Handbook of South American Indians. On September 2, 1941, Dr. A. Métraux was appointed to assist Dr. Steward in the preparation of the Handbook.

At the end of the fiscal year, completed manuscripts totaling about 600,000 words had been received from approximately 90 contributors. Half of the contributions are from Latin American scientists, while the remainder are from North American specialists on Middle and South American Indian tribes. The very important tribal map covering a large portion of South America was completed for the Handbook by Curt Nimuendaju and is now in Dr. Steward's hands. A collection of photographs of South American Indians was begun, and between 4,000 and 5,000 bibliographic items had been assembled.

From February to May 1942, Dr. Steward visited Brazil, Argentina, Paraguay, and Chile, where he conferred with Latin American anthropologists and arranged for their cooperation in matters pertaining to the Handbook. He also discussed plans for the formation

of an "inter-American anthropological and geographic society," for the development of cooperative anthropological and geographic research, and for the expansion of the exchange of publications. During this visit, Dr. Steward was made an honorary member of Academia Guaraní of Paraguay and Sociedad de Antropología de Argentina.

Dr. Steward has also served during the year as a member of the Policy Board of the American Indian Institute, the Advisory Board Strategic Index, and Publications Subcommittee of the Joint Committee on Latin American Studies.

During the past fiscal year, Dr. Henry B. Collins, Jr., ethnologist, continued with the study of archeological materials from prehistoric Eskimo village sites around Bering Strait. In April he presented a paper at the annual meeting of the American Philosophical Society, at Philadelphia, in which he discussed the relationships between prehistoric Eskimo culture and recently described Neolithic remains from the Lake Baikal region, southern Siberia, which have been regarded as the source of the basic American Indian culture. The paper, which is to be published in somewhat expanded form in the Proceedings of the Society, points out a number of close resemblances between the oldest Eskimo cultures—which probably date from around the beginning of the Christian era—and the Siberian Neolithic. The older stages of culture elsewhere in America, such as Folsom and Sandia, exhibit no such resemblances; it seems unlikely, therefore, that the Siberian Neolithic was the reservoir from which American culture in general was derived.

In the latter part of the fiscal year, Dr. Collins devoted considerable time to work in connection with the war effort, including the preparation of illustrated reports on various strategic areas. Preparation was also begun on a general paper on Alaska for the Smithsonian War Background Studies.

Dr. William N. Fenton, associate anthropologist, devoted the summer months of 1941 to the preparation of an introduction to his materials on Iroquois medical botany. Since a surprising number of Indian herbs have been taken into our pharmacopoeia, it was decided to publish the section on Contacts between Iroquois Herbalism and Colonial Medicine, a unit of itself, as an article in the appendix to the Annual Report of the Smithsonian Institution for 1941, reserving the balance of the study for a longer monograph.

In November, Dr. Fenton went to Brantford, Ontario, to work with Simeon Gibson of Six Nations Reserve at translating Onondaga texts bearing on the Iroquois League which his father, Chief John A. Gibson, had dictated to the late J. N. B. Hewitt. Of these the principal manuscript is a 189-page version in Onondaga of the "Deganawi'dah" legend of the founding of the Iroquois confederacy. Some 13 years later,

Chief Gibson dictated a longer version of the same legend to Dr. Alexander Goldenweiser, and this manuscript was turned over to Dr. Fenton some years ago by its collector. A translation of the Hewitt manuscript was completed in the field, and this has been reworked in part during the winter. Plans were made to translate the Goldenweiser manuscript during the ensuing year.

Two other research projects continued through the year. New materials were discovered by Dr. Fenton's collaborators in a study of Cornplanter's Senecas on the upper Allegheny River, mentioned in the report of last year, and the search for journals of the Quaker missions after 1798 has continued with some success. In this work Dr. Fenton acknowledges the labors of Messrs. M. E. Deardorff, of Warren, Pa., and C. E. Congdon, of Salamanca, N. Y., in transcribing manuscript sources and collecting much new material in the field.

The second project was conceived several years ago to fulfill a growing need among Americanists for an English edition of J. F. Lafitau's important but now rare Moeurs des Sauvages Ameriquains (2 vols., Paris, 1724). Dr. Elizabeth L. Moore, of Parkersburg, W. Va., one-time member of the French department at St. Lawrence University, has undertaken the translation, and at the end of the year had completed, under Dr. Fenton's direction, the translation of those sections in volume 1 which include Lafitau's observations of the American savages at his mission among the Mohawks of Caughnawaga and the Abenaki of nearby St. Francis, omitting for the most part long extracts from contemporary and earlier works that Lafitau felt obliged to copy. In order to conserve the Bureau's copy of this rare work, a microfilm copy was made, which is fortunate since the original library copy has been evacuated for the duration.

Early in March Dr. Fenton commenced compiling, with the help of Drs. Métraux, Collins, and Steward, a cumulative list of anthropologists arriving in Washington for war work and the agencies in which they were employed.

Following appointment to the Smithsonian War Committee on April 1, a large proportion of Dr. Fenton's time and efforts have gone into the work of the Committee, of which he has served as secretary. At his suggestion the Committee drafted and distributed questionnaires soliciting basic data for "A roster of personnel, world travel, and special knowledge available to war agencies at the Smithsonian Institution," and by early June the roster had been ushered through a preliminary and a first edition. The Smithsonian roster was patterned after personnel lists of the Oceania committee of the old "Ethnographic Board" of the National Research Council, and through these contacts the Smithsonian participated in setting up the Ethnogeographic Board. At the end of the fiscal year Dr. Fenton was detailed to act

489366—42——5

as an assistant to the director of the Board, Dr. William Duncan Strong.

During the year, Dr. Fenton delivered several illustrated lectures presenting some of the results of his studies of Iroquois culture.

At the end of the fiscal year a manuscript entitled "Songs from the Iroquois Longhouse; Program Notes for an Album of American Indian Music from the Eastern Woodlands" was accepted for publication by the Institution to accompany an album of phonograph records by the same title which the Archive of American Folk Song, Library of Congress, is bringing out as volume 6 of Folk Music of the United States.

Dr. Philip Drucker, assistant anthropologist, devoted the first half of the fiscal year to analysis of the pottery collections made in 1941 by the Smithsonian Institution-National Geographic Society expedition at Cerro de las Mesas, Veracruz, Mexico, and the preparation of a report on this material, Ceramic Stratigraphy at Cerro de las Mesas, Veracruz. Thanks to the cooperation of the Department of Archeology of the Mexican Government, he was able to study comparative collections of materials stored in the Museo Nacional de Mexico from adjacent regions, which greatly facilitated the placing of the Cerro de las Mesas culture. It was found that this site was occupied from a time level corresponding to that of Teotihuacán III of the Highland cultures until shortly before the Spanish conquest. The Ninth Cycle dates discovered in 1940 probably belong to the early period of occupation at Cerro de las Mesas. Of added interest is the fact that these dates are not only of importance to the archeology of the Gulf Coast, but in addition are the first actual carved dates even indirectly referable to the important center of civilization of the Mexican Highland, Teotihuacán. Following the period of Teotihuacán influence, a new set of influences appeared, probably an actual immigration, of Mixtecan people who brought with them their pottery craft, so that during the Upper Period at Cerro de las Mesas great quantities of Mixtecan-type (Cholultecan) wares were made. The modern designation of this coastal region as the "Mistequilla," incidentally, thus may be seen to be a well-based ethnic identification.

In the latter part of January, Dr. Drucker set out for the site of La Venta, in northwest Tabasco, where discoveries in 1940 indicated the importance of the place as an ancient ceremonial center. Excavations were carried out, aimed primarily at recovering stratigraphic material for the analysis and placing of the site in relation to the Tres Zapotes and Cerro de las Mesas "pottery yardsticks" established in former years, and for comparisons with material from more distant sites as well. Toward the end of the season some exploratory excavations were undertaken in structures at the site, especially in the large ceremonial

patio. These efforts were rewarded by the finding of an elaborate tomb of basalt columns, and a number of pieces of small but exquisitely carved jade. Most of these jade pieces represent the little-known art style often designated "Olmec," and are among the first of such objects to have been scientifically excavated. Their study will be important in defining and placing this art in its proper cultural context.

At the conclusion of the work, the materials were brought to Mexico City, where a division was made with the Department of Archeology of the Mexican Government. The entire body of stratigraphic materials, and a part of the remaining objects, were then shipped to Washington for purposes of study.

SPECIAL RESEARCHES

At the beginning of the fiscal year, Miss Frances Densmore, a collaborator of the Bureau, began the recording of Omaha songs at Macy, Nebr., on the Omaha Reservation. Musical studies had been made among the Omaha by Miss Alice C. Fletcher prior to 1893, and Miss Densmore wished, if possible, to contact singers who had recorded for Miss Fletcher and also to obtain duplicate recordings for comparative purposes. Among the older Indians, Miss Densmore located three singers, Edward Cline, Benjamin Parker, and Mattie Merrick White Parker, from whom songs had been obtained by Miss Fletcher. Miss Densmore recorded 32 songs from this group, including several which had been sung for Miss Fletcher. Joseph Hamilton and Henry J. Springer, who had been too young to sing for Miss Fletcher, were familiar with the songs of old war societies and recorded 33 songs. A third group comprised younger men, George R. Phillips, Robert Dale, and John G. Miller, from whom 6 songs connected with the first World War were obtained.

Some of Miss Fletcher's published Omaha songs were played on a piano and were recognized by the Indians as having been recorded for her. Miss Densmore obtained new recordings of these which were transcribed and compared with the versions presented by Miss Fletcher. It was noted that while the general effect of each melody is the same in both versions, differences are rather marked. An adequate comparison of the singing of these songs in the two periods of time could be made only if the original recordings were available for comparison with the records made in 1941. In contrast to the differences in these serious songs, it was said that the song of the hand game, presented by Miss Fletcher, is in use at the present time. This was re-recorded for the present work, and the two versions differ only in the omission in the new recording of a few bytones. From this it appears that songs in common use are preserved among the Omaha without change, while songs connected with ancient cus-

toms or ceremonies, which have not been sung for many years, are being forgotten and will soon disappear.

Miss Densmore also obtained from Benjamin Parker a description and a model of an old type of drum. In former times the cylinder of this drum was a charred log, preferably of oak or elm. The lower head was of hide from the lower part of a buffalo's neck, and the upper head, which was struck, was made of deer hide or the hide from a hindquarter of an elk. These heads were laced together with buffalo thongs and tightened with bits of wood in the lacing, a custom not observed previously among the Indians.

During the year Miss Densmore arranged in final order 245 songs to accompany her manuscript on Seminole music and revised portions of the text to conform to this arrangement of the material.

In December 1941 Miss Densmore was appointed as consultant at The National Archives for work in connection with the Smithsonian-Densmore collection of sound recordings of American Indian music, and during the ensuing months she was engaged in planning the organization of the collection.

EDITORIAL WORK AND PUBLICATIONS

The editorial work of the Bureau has continued during the year under the immediate direction of the editor, M. Helen Palmer. There were issued one Annual Report and three Bulletins, as follows:

Fifty-eighth Annual Report of the Bureau of American Ethnology, 1940–1941. 13 pp.

Bulletin 129. An archeological survey of Pickwick Basin in the adjacent portions of the States of Alabama, Mississippi, and Tennessee, by William S. Webb and David L. DeJarnette. With additions by Walter B. Jones, J. P. E. Morrison, Marshall T. Newman and Charles E. Snow, and William G. Haag. 536 pp., 316 pls., 99 text figs.

Bulletin 130. Archeological investigations at Buena Vista Lake, Kern County, California, by Waldo R. Wedel. With appendix, Skeletal remains from the Buena Vista sites, California, by T. D. Stewart. 194 pp., 57 pls., 19 text figs.

Bulletin 131. Peachtree Mound and village site, Cherokee County, North Carolina, by Frank M. Setzler and Jesse D. Jennings. With appendix, Skeletal remains from the Peachtree Site, North Carolina, by T. D. Stewart. 103 pp., 50 pls., 12 text figs.

The following Bulletins were in press at the close of the fiscal year:

Bulletin 132. Source material on the history and ethnology of the Caddo Indians, by John R. Swanton.

Bulletin 133. Anthropological papers, numbers 19–26:

No. 19. A search for songs among the Chitimacha Indians in Louisiana, by Frances Densmore.

No. 20. Archeological survey on the northern Northwest Coast, by Philip Drucker.

No. 21. Some notes on a few sites in Beaufort County, South Carolina, by Regina Flannery.

No. 22. An analysis and interpretation of the ceramic remains from two sites near Beaufort, South Carolina, by James B. Griffin.

No. 23. The eastern Cherokees, by William Harlen Gilbert, Jr.

No. 24. Aconite poison whaling in Asia and America: An Aleutian transfer to the New World, by Robert F. Heizer.

No. 25. The Carrier Indians of the Bulkley River: Their social and religious life, by Diamond Jenness.

No. 26. The quipu and Peruvian civilization, by John R. Swanson.

Bulletin 134. Native tribes of eastern Bolivia and western Matto Grosso, by Alfred Métraux.

Bulletin 135. Origin myth of Acoma and other records, by Matthew W. Stirling.

Bulletin 136. Anthropological papers, numbers 27–32:

No. 27. Music of the Indians of British Columbia, by Frances Densmore.

No. 28. Choctaw music, by Frances Densmore.

No. 29. Some enthnological data concerning one hundred Yucatan plants, by Morris Steggerda.

No. 30. A description of 30 towns in Yucatan, 1937–39, with introductory and explanatory remarks, by Morris Steggerda.

No. 31. Some western Shoshoni myths, by Julian H. Steward.

No. 32. New material from Acoma, by Leslie A. White.

Bulletin 137. The Indians of the Southeastern United States, by John R. Swanton.

Publications distributed totaled 11,631.

LIBRARY

There has been no change in the library staff during the fiscal year. Accessions during the fiscal year totaled 350. Volumes received by exchange have fallen off sharply owing to the war, which has practically stopped exchange except from Great Britain and her possessions and from South America. Several new exchange sets have been started during the year.

The reclassification of the library is practically completed. The foreign society transactions and the foreign periodicals have been reshelved and a temporary shelflist made. The publications of Indian schools and missions have been classified, reshelved, and a temporary shelflist made. All available Library of Congress cards for periodicals in our collection have been obtained, and these cards have been sorted and will be prepared as soon as time permits.

The rare-book collection has been classified, reshelved, and shelflisted, and Library of Congress cards were obtained for nearly all this collection. About 600 volumes of the rare-book collection were packed for shipment to war storage in April.

New books received during the year have been classified and shelflisted and are now on the shelf. The usual work of recording new

periodicals and society transactions and examining them for material of interest and for book reviews has been kept up to date.

A beginning has been made on bringing analytical entries up to date. The American Anthropologist, American Journal of Physical Anthropology, American Antiquity, and other important sets have been brought up to date with main cards only. Other sets and subject entries remain to be done.

The librarian attended the meetings of the Inter-American Bibliographical and Library Society in February 1942, and assisted in the formation of a Map and Geography group in the Washington chapter of the Special Libraries Association. Talks by the librarian on the library and the rare-book collection were given before the Map group of the Special Libraries Association on January 6, 1942, and before the Museum group on March 10, 1942.

ILLUSTRATIONS

During the year Mr. E. G. Cassedy, illustrator, continued the preparation of illustrations, maps, and drawings for the publications of the Bureau and for those of other branches of the Institution.

COLLECTIONS

Collections transferred by the Bureau of American Ethnology to the Department of Anthropology, United States National Museum, during the fiscal year were as follows:

Accession No.

161294. Cult objects from voodoo shrines in the region of Croix des Bouquets near Port-au-Prince, Haiti, and a small lot of archeological objects from Tortuga Island off the north coast of Haiti; collected by Dr. A. Métraux during the summer of 1941.

162205. Archeological materials from Ventura, Santa Barbara, Inyo, and Kern Counties, Calif., collected by Dr. W. D. Strong in 1934.

MISCELLANEOUS

During the course of the year information was furnished by members of the Bureau staff in reply to numerous inquiries concerning the North American Indians, both past and present, and the Mexican peoples of the prehistoric and early historic periods. Various specimens sent to the Bureau were identified and data on them furnished for their owners.

Personnel.—Dr. Philip Drucker was appointed on August 1, 1941, as assistant anthropologist; Dr. Alfred Métraux was appointed on September 2, 1941, as anthropologist; Miss Ethelwyn E. Carter was appointed on September 2, 1941, as assistant clerk-stenographer in connection with the preparation of the Handbook of South American

Indians; Mrs. Catherine M. Phillips, junior stenographer, was promoted to assistant clerk-stenographer on January 16, 1942, in the editorial division, Smithsonian Institution, and Mrs. Ruth S. Abramson was appointed on March 12, 1942, to fill this vacancy; W. B. Greenwood was transferred on February 12, 1942, to the United States National Museum, and on April 1, 1942, was reassigned to his former position in the Bureau library.

Respectfully submitted.

M. W. STIRLING, *Chief.*

DR. C. G. ABBOT,
Secretary, Smithsonian Institution.

APPENDIX 6

REPORT ON THE INTERNATIONAL EXCHANGE SERVICE

SIR: I have the honor to submit the following report on the activities of the International Exchange Service for the fiscal year ended June 30, 1942:

The congressional appropriation for the Exchanges was $44,880, the same amount granted for the previous year. As was done last year, the Department of State transferred $500 to the Exchange Service from an appropriation made by Congress to that Department for carrying on its work of increasing the cultural relations between the United States and other American republics. This amount was used by the Exchange Service to send packages directly to correspondents in Argentina and Brazil by mail instead of forwarding them in boxes to exchange bureaus for distribution, thereby greatly reducing the time required for packages to reach their destinations. To all other South and Central American countries, as well as to Canada, Cuba, Dominican Republic, Haiti, Mexico, and Newfoundland, packages of publications are transmitted by mail under governmental frank. The $500 was not sufficient to meet the entire cost of postage on all the packages for Argentina and Brazil but the extra amount needed for this item was met from the congressional appropriation for the Exchanges. The total available resources for carrying on the exchange work was $48,505.50, there having been received during the year on account of repayments $3,125.50.

During the year 561,151 packages passed through the service, a decrease from last year of 15,131. The weight was 326,406 pounds, a decrease of 62,243 pounds. The publications sent and received through the Exchange Service are classified under three heads: Parliamentary documents, departmental documents, and miscellaneous scientific and literary publications. The term "parliamentary documents," as here used, refers to publications set aside by act of Congress for exchange with foreign governments, and includes not only documents printed by order of either House of Congress, but also copies of each publication issued by any department, bureau, commission, or officer of the Government. Governments to which this class of publications are forwarded send to this country in exchange copies of their own official documents for deposit in the Library

of Congress. The term "departmental documents" embraces publications delivered at the Institution by governmental departments, bureaus, or commissions for distribution to their correspondents abroad. Publications received in return are deposited in the various departmental libraries. "Miscellaneous scientific and literary publications" are received chiefly from learned societies, universities, colleges, scientific institutions, and museums in the United States for transmission to similar establishments in all parts of the world.

Detailed figures under these three headings are given in the following table:

	Packages		Weight	
	Sent abroad	Received from abroad	Sent abroad	Received from abroad
			Pounds	*Pounds*
United States parliamentary documents sent abroad	365, 620		125, 798	
Publications received in return for parliamentary documents		301		1, 555
United States departmental documents sent abroad	93, 247		87, 432	
Publications received in return for departmental documents		1, 033		2, 508
Miscellaneous scientific and literary publications sent abroad	93, 377		94, 655	
Miscellaneous scientific and literary publications received from abroad for distribution in the United States		7, 573		14, 458
Total	552, 244	8, 907	307, 885	18, 521
Grand total	561, 151		326, 406	

Packages are forwarded abroad partly by freight to exchange bureaus for distribution and partly by mail directly to their destinations. The number of boxes shipped was 599, a decrease from last year of 366. Of these boxes 304 were for depositories of full sets of governmental documents and the contents of the remainder (295) were for depositories of partial sets and for various establishments and individuals. The number of mail packages was 127,454.

The work of the Service is still greatly interfered with by the war, which at the close of the year had resulted in the suspension of shipments of exchanges to all countries in the Eastern Hemisphere except Great Britain and the Union of South Africa. In the Western Hemisphere, where packages are forwarded to their destinations by mail, mostly under governmental frank, there has been no interruption to the sending of packages, although some delay results from their examination by the Office of Censorship before being allowed to leave the United States.

The dates of the last shipments to the countries to which the sending of consignments was suspended during the year are given below:

India	Oct. 17, 1941
Portugal	Apr. 7, 1942
Sweden	Dec. 2, 1941

Switzerland	Dec. 8, 1941
New Zealand	Sept. 22, 1941
New South Wales	Dec. 22, 1941
Queensland	Do.
South Australia	Do.
Tasmania	Sept. 22, 1941
Victoria	Dec. 22, 1941
Western Australia	Sept. 22, 1941

FOREIGN DEPOSITORIES OF GOVERNMENTAL DOCUMENTS

There now are received at the Institution for transmission through the International Exchange Service to foreign depositories 55 full sets and 36 partial sets of United States governmental documents—a total of 91 sets. At the close of the year no sets of governmental documents were being forwarded to any countries in the Eastern Hemisphere. In the Western Hemisphere the full and partial series were being transmitted after eliminating those publications not allowed to be exported by the Office of Censorship because they were considered to contain matter of possible aid to the enemy. All the publications forming the full and partial sets of governmental documents now being held will be forwarded at the close of the war.

The depository in South Australia was changed from the Parliamentary Library to the Public Library. The partial sets sent to the Straits Settlements and the State of Rio de Janeiro were discontinued. The Biblioteca Nacional in San Salvador was added to the list of depositories of those sets.

A complete list of the depositories is given below:

DEPOSITORIES OF FULL SETS

ARGENTINA: Dirección de Investigaciones, Archivo, Biblioteca y Legislación Extranjera, Ministerio de Relaciones Exteriores y Culto, Buenos Aires.
AUSTRALIA: Commonwealth Parliament and National Library, Canberra.
NEW SOUTH WALES: Public Library of New South Wales, Sydney.
QUEENSLAND: Parliamentary Library, Brisbane.
SOUTH AUSTRALIA: Public Library of South Australia, Adelaide.
TASMANIA: Parliamentary Library, Hobart.
VICTORIA: Public Library of Victoria, Melbourne.
WESTERN AUSTRALIA: Public Library of Western Australia, Perth.
BELGIUM: Bibliothèque Royale, Bruxelles.
BRAZIL: Instituto Nacional do Livro, Rio de Janeiro.
CANADA: Library of Parliament, Ottawa.
MANITOBA: Provincial Library, Winnipeg.
ONTARIO: Legislative Library, Toronto.
QUEBEC: Library of the Legislature of the Province of Quebec.
CHILE: Biblioteca Nacional, Santiago.
CHINA: Bureau of International Exchange, Ministry of Education, Chungking.
COLOMBIA: Biblioteca Nacional, Bogotá.

COSTA RICA: Oficina de Depósito y Canje Internacional de Publicaciones, San José.
CUBA: Ministerio de Estado, Dirección de Relaciones Culturales, Habana.
CZECHOSLOVAKIA: Bibliothèque de l'Assemblée Nationale, Prague.
DENMARK: Kongelige Danske Videnskabernes Selskab, Copenhagen.
EGYPT: Bureau des Publications, Ministère des Finances, Cairo.
ESTONIA: Riigiraamatukogu (State Library), Tallinn.
FINLAND: Parliamentary Library, Helsinki.
FRANCE: Bibliothèque Nationale, Paris.
GERMANY: Reichstauschstelle im Reichsministerium für Wissenschaft, Erziehung und Volksbildung, Berlin, N. W. 7.
PRUSSIA: Preussische Staatsbibliothek, Berlin, N. W. 7.
GREAT BRITAIN:
ENGLAND: British Museum, London.
LONDON: London School of Economics and Political Science. (Depository of the London County Council.)
HUNGARY: Library, Hungarian House of Delegates, Budapest.
INDIA: Imperial Library, Calcutta.
IRELAND: National Library of Ireland, Dublin.
ITALY: Ministero dell'Educazione Nazionale, Rome.
JAPAN: Imperial Library of Japan, Tokyo.
LATVIA: Bibliothèque d'État, Riga.
LEAGUE OF NATIONS: Library of the League of Nations, Geneva, Switzerland.
MEXICO: Dirección General de Información, Secretaría de Gobernación, Mexico, D. F.
NETHERLANDS: Royal Library, The Hague.
NEW ZEALAND: General Assembly Library, Wellington.
NORTHERN IRELAND: H. M. Stationery Office, Belfast.
NORWAY: Universitets-Bibliothek, Oslo. (Depository of the Government of Norway.)
PERU: Sección de Propaganda y Publicaciones, Ministerio de Relaciones Exteriores, Lima.
POLAND: Bibliothèque Nationale, Warsaw.
PORTUGAL: Biblioteca Nacional, Lisbon.
RUMANIA: Academia Română, Bucharest.
SPAIN: Cambio Internacional de Publicaciones, Avenida de Calvo Sotelo 20, Madrid.
SWEDEN: Kungliga Biblioteket, Stockholm.
SWITZERLAND: Bibliothèque Centrale Fédérale, Berne.
TURKEY: Department of Printing and Engraving, Ministry of Education, Istanbul.
UNION OF SOUTH AFRICA: State Library, Pretoria, Transvaal.
UNION OF SOVIET SOCIALIST REPUBLICS: All-Union Lenin Library, Moscow 115.
UKRAINE: Ukrainian Society for Cultural Relations with Foreign Countries, Kiev.
URUGUAY: Oficina de Canje Internacional de Publicaciones, Montevideo.
VENEZUELA: Biblioteca Nacional, Caracas.
YUGOSLAVIA: Ministère de l'Éducation, Belgrade.

DEPOSITORIES OF PARTIAL SETS

AFGHANISTAN: Ministery of Foreign Affairs, Publications Department, Kabul.
BOLIVIA: Biblioteca del Ministerio de Relaciones Exteriores y Culto, La Paz.

BRAZIL:
MINAS GERAES: Directoria Geral de Estatistica em Minas, Bello Horizonte.
BRITISH GUIANA: Government Secretary's Office, Georgetown, Demerara.
CANADA:
ALBERTA: Provincial Library, Edmonton.
BRITISH COLUMBIA: Provincial Library, Victoria.
NEW BRUNSWICK: Legislative Library, Fredericton.
NOVA SCOTIA: Provincial Secretary of Nova Scotia, Halifax.
PRINCE EDWARD ISLAND: Legislative and Public Library, Charlottetown.
SASKATCHEWAN: Legislative Library, Regina.
CEYLON: Chief Secretary's Office (Record Department of the Library), Colombo.
CHINA: National Library of Peiping.
DOMINICAN REPUBLIC: Biblioteca del Senado, Ciudad Trujillo.
ECUADOR: Biblioteca Nacional, Quito.
GUATEMALA: Biblioteca Nacional, Guatemala.
HAITI: Bibliothèque Nationale, Port-au-Prince.
HONDURAS:
Biblioteca y Archivo Nacionales, Tegucigalpa.
Ministerio de Relaciones Exteriores, Tegucigalpa.
ICELAND: National Library, Reykjavik.
INDIA:
BENGAL: Secretary, Bengal Legislative Council Department, Council House, Calcutta.
BIHAR AND ORISSA: Revenue Department, Patna.
BOMBAY: Undersecretary to the Government of Bombay, General Department, Bombay.
BURMA: Secretary to the Government of Burma, Education Department, Rangoon.
PUNJAB: Chief Secretary to the Government of the Punjab, Lahore.
UNITED PROVINCES OF AGRA AND OUDH: University of Allahabad, Allahabad.
JAMAICA: Colonial Secretary, Kingston.
LIBERIA: Department of State, Monrovia.
MALTA: Minister for the Treasury, Valletta.
NEWFOUNDLAND: Department of Home Affairs, St. John's.
NICARAGUA: Ministerio de Relaciones Exteriores, Managua.
PANAMA: Ministerio de Relaciones Exteriores, Panama.
PARAGUAY: Secretario de la Presidencia de la República, Asunción.
SALVADOR:
Biblioteca Nacional, San Salvador.
Ministerio de Relaciones Exteriores, San Salvador.
THAILAND: Department of Foreign Affairs, Bangkok.
VATICAN CITY: Biblioteca Apostolica Vaticana, Vatican City, Italy.

INTERPARLIAMENTARY EXCHANGE OF THE OFFICIAL JOURNAL

The number of depositories of the Congressional Record and Federal Register was reduced during the first 9 months of the year, the number forwarded being 71. Those sent to the following countries were discontinued in March 1942: Gibraltar, Hungary, Indochina, Netherlands Indies, Rumania (2 copies), and Vatican City. In April 1942, the sending of the Congressional Record to foreign countries

through the International Exchange Service was discontinued for the duration of the war by request of the Office of Censorship.

DEPOSITORIES OF CONGRESSIONAL RECORD

ARGENTINA:
Biblioteca del Congreso Nacional, Buenos Aires.
Cámara de Diputados, Oficina de Información Parlamentaria, Buenos Aires.
Boletín Oficial de la República Argentina, Ministerio de Justicia e Instrucción Pública, Buenos Aires.

AUSTRALIA:
Commonwealth Parliament and National Library, Canberra.
NEW SOUTH WALES: Library of Parliament of New South Wales, Sydney.
QUEENSLAND: Chief Secretary's Office, Brisbane.
WESTERN AUSTRALIA: Library of Parliament of Western Australia, Perth.

BRAZIL:
Biblioteca do Congresso Nacional, Rio de Janeiro.
AMAZONAS: Archivo, Biblioteca e Imprensa Publica, Manáos.
BAHIA: Governador do Estado da Bahia, São Salvador.
ESPIRITO SANTO: Presidencia do Estado do Espirito Santo, Victoria.
RIO GRANDE DO SUL: "A Federação," Porto Alegre.
SERGIPE: Biblioteca Publica do Estado de Sergipe, Aracajú.
SÃO PAULO: Diario Official do Estado de São Paulo, São Paulo.

BRITISH HONDURAS: Colonial Secretary, Belize.

CANADA:
Library of Parliament, Ottawa.
Clerk of the Senate, Houses of Parliament, Ottawa.

CUBA: Biblioteca del Capitolio, Habana.

EGYPT:
Chambre des Députés, Cairo.
Sénat, Cairo.

GREAT BRITAIN: Library of the Foreign Office, London.

GUATEMALA: Biblioteca de la Asamblea Legislativa, Guatemala.

HAITI: Bibliothèque Nationale, Port-au-Prince.

HONDURAS: Biblioteca del Congreso Nacional, Tegucigalpa.

INDIA: Legislative Department, Simla.

IRAN: Library of the Iranian Parliament, Téhéran.

IRAQ: Chamber of Deputies, Baghdad.

IRISH FREE STATE: Dail Eireann, Dublin.

LEAGUE OF NATIONS: Library of the League of Nations, Geneva, Switzerland.

LEBANON: Ministère des Finances de la République Libanaise, Service du Matériel, Beirut.

LIBERIA: Department of State, Monrovia.

MEXICO: Dirección General de Información, Secretaría de Gobernación, Mexico, D. F.
AGUASCALIENTES: Gobernador del Estado de Aguascalientes, Aguascalientes.
CAMPECHE: Gobernador del Estado de Campeche, Campeche.
CHIAPAS: Gobernador del Estado de Chiapas, Tuxtla Gutierrez.
CHIHUAHUA: Gobernador del Estado de Chihuahua, Chihuahua.
COAHUILA: Periódico Oficial del Estado de Coahuila, Palacio de Gobierno, Saltillo.
COLIMA: Gobernador del Estado de Colima, Colima.
DURANGO: Gobernador Constitucional del Estado de Durango, Durango.
GUANAJUATO: Secretaría General de Gobierno del Estado, Guanajuato.

GUERRERO: Gobernador del Estado de Guerrero, Chilpancingo.
JALISCO: Biblioteca del Estado, Guadalajara.
LOWER CALIFORNIA: Gobernador del Distrito Norte, Mexicali.
MÉXICO: Gaceta del Gobierno, Toluca.
MICHOACÁN: Secretaría General de Gobierno del Estado de Michoacán, Morelia.
MORELOS: Palacio de Gobierno, Cuernavaca.
NAYARIT: Gobernador de Nayarit, Tepic.
NUEVO LEÓN: Biblioteca del Estado, Monterrey.
OAXACA: Periódico Oficial, Palacio de Gobierno, Oaxaca.
PUEBLA: Secretaría General de Gobierno, Puebla.
QUERÉTARO: Secretaría General de Gobierno, Sección de Archivo, Querétaro.
SAN LUIS POTOSÍ: Congreso del Estado, San Luis Potosí.
SINALOA: Gobernador del Estado de Sinaloa, Culiacán.
SONORA: Gobernador del Estado de Sonora, Hermosillo.
TABASCO: Secretaría General de Gobierno, Sección 3a, Ramo de Prensa, Villahermosa.
TAMAULIPAS: Secretaría General de Gobierno, Victoria.
TLAXCALA: Secretaría de Gobierno del Estado, Tlaxcala.
VERACRUZ: Gobernador del Estado de Veracruz, Departamento de Gobernación y Justicia, Jalapa.
YUCATÁN: Gobernador del Estado de Yucatán, Mérida, Yucatán.
NEW ZEALAND: General Assembly Library, Wellington.
PERU: Cámara de Diputados, Lima.
SWITZERLAND: Bibliothèque de l'Assemblée Fédérale Suisse, Berne.
BERN: Staatskanzlei des Kantons Bern.
ST. GALLEN: Staatskanzlei des Kantons St. Gallen.
SCHAFFHAUSEN: Staatskanzlei des Kantons Schaffhausen.
ZÜRICH: Staatskanzlei des Kantons Zürich.
TURKEY: Turkish Grand National Assembly, Ankara.
UNION OF SOUTH AFRICA:
Library of Parliament, Cape Town, Cape of Good Hope.
State Library, Pretoria, Transvaal.
URUGUAY: Diario Oficial, Calle Florida 1178, Montevideo.
VENEZUELA: Biblioteca del Congreso, Caracas.

FOREIGN EXCHANGE AGENCIES

The following is a list of bureaus or agencies to which consignments are forwarded in boxes by freight when the Service is in full operation. To all countries not appearing in the list, packages are sent directly to their destinations by mail.

LIST OF AGENCIES

ALGERIA, via France.
ANGOLA, via Portugal.
AUSTRIA, via Germany.
AZORES, via Portugal.
BELGIUM: Service Belge des Échanges Internationaux, Bibliothèque Royale de Belgique, Bruxelles.
CANARY ISLANDS, via Spain.
CHINA: Bureau of International Exchange, Ministry of Education, Chungking.

CZECHOSLOVAKIA: Service des Échanges Internationaux, Bibliothèque de l'Assemblée Nationale, Prague 1–79.

DENMARK: Service Danois des Échanges Internationaux, Kongelige Danske Videnskabernes Selskab, Copenhagen V.

EGYPT: Government Press, Publications Office, Bulaq, Cairo.

FINLAND: Delegation of the Scientific Societies of Finland, Kasärngatan 24, Helsinki.

FRANCE: Service Français des Échanges Internationaux, 110 Rue de Grenelle, Paris.

GERMANY: Amerika-Institut, Universitätstrasse 8, Berlin, N. W. 7.

GREAT BRITAIN AND IRELAND: Wheldon & Wesley, 721 North Circular Road, Willesden, London, NW. 2.

HUNGARY: Hungarian Libraries Board, Ferenciektere 5, Budapest, IV.

INDIA: Superintendent of Government Printing and Stationery, Bombay.

ITALY: Ufficio degli Scambi Internazionli, Ministero dell'Educazione Nazionale, Rome.

JAPAN: International Exchange Service, Imperial Library of Japan, Uyeno Park, Tokyo.

LATVIA: Service des Échanges Internationaux, Bibliothèque d'État de Lettonie, Riga.

LUXEMBOURG, via Belgium.

MADAGASCAR, via France.

MADEIRA, via Portugal.

MOZAMBIQUE, via Portugal.

NETHERLANDS: International Exchange Bureau of the Netherlands, Royal Library, The Hague.

NEW SOUTH WALES: Public Library of New South Wales, Sydney.

NEW ZEALAND: General Assembly Library, Wellington.

NORWAY: Service Norvégien des Échanges Internationaux, Bibliothèque de l'Université Royale, Oslo.

PALESTINE: Jewish National and University Library, Jerusalem.

POLAND: Service Polonais des Échanges Internationaux, Bibliothèque Nationale, Warsaw.

PORTUGAL: Secção de Trocas Internacionaes, Biblioteca Nacional, Lisbon.

QUEENSLAND: Bureau of Exchanges of International Publications, Chief Secretary's Office, Brisbane.

RUMANIA: Ministère de la Propagande Nationale, Service des Échanges Internationaux, Bucharest.

SOUTH AUSTRALIA: South Australian Government Exchanges Bureau, Government Printing and Stationery Office, Adelaide.

SPAIN: Junta de Intercambio y Adquisición de Libros y Revistas para Bibliotecas Públicas, Ministerio de Educación Nacional, Avenida Calvo Sotelo, 20, Madrid.

SWEDEN: Kungliga Biblioteket, Stockholm.

SWITZERLAND: Service Suisse des Échanges Internationaux, Bibliothèque Centrale Fédérale, Berne.

TASMANIA: Secretary to the Premier, Hobart.

TURKEY: Ministry of Education, Department of Printing and Engraving, Istanbul.

UNION OF SOUTH AFRICA: Government Printing and Stationery Office, Cape Town, Cape of Good Hope.

UNION OF SOVIET SOCIALIST REPUBLICS: International Book Exchange Department, Society for Cultural Relations with Foreign Countries, Moscow, 56.

VICTORIA: Public Library of Victoria, Melbourne.
WESTERN AUSTRALIA: Public Library of Western Australia, Perth.
YUGOSLAVIA: Section des Échanges Internationaux, Ministère des Affaires Étrangères, Belgrade.

C. W. Shoemaker, Chief Clerk of the Exchanges, was retired on November 30, 1941, after more than 59 years of service with the Institution and after having worked 11 years over the statutory retirement age of 70. In this connection it may be mentioned that the International Exchanges is noted for the length of service of some of its employees. M. A. Tolson has served under the Institution for more than 61 years and F. E. Gass for 55 years.

Respectfully submitted.

F. E. GASS, *Acting Chief Clerk.*

Dr. C. G. ABBOT,
Secretary, Smithsonian Institution.

APPENDIX 7

REPORT ON THE NATIONAL ZOOLOGICAL PARK

SIR: I have the honor to submit the following report on the operations of the National Zoological Park for the fiscal year ended June 30, 1942:

The regular appropriation made by Congress was $239,260, all of which was expended with the exception of $4,000, which represents savings of salaries for positions not filled.

PERSONNEL

In common with other agencies, the Zoo has had considerable personnel turn-over, losing a number of its capable employees through transfer to military service. These have been replaced, as far as possible, with employees who will serve for the duration and until the return of the regular staff.

IMPROVEMENTS

The cessation of W. P. A. work and the conditions resulting from the war have prevented the making of material improvements. Before our entry into the war, a small amount of work was done at the reptile pit in front of the reptile house to improve its appearance as a natural habitat area.

NEEDS OF THE ZOO

The needs of the Zoo remain the same as outlined in previous reports. On account of war conditions, no request is being made for unusual expenditures at this time.

VISITORS FOR THE YEAR

The attendance for the year was slightly more than that for last year. The tire and gasoline rationing which went into effect in late spring brought about a perceptible increase in visitors by bus and streetcar and on foot.

July	241,300	February	101,500
August	278,400	March	159,900
September	295,300	April	244,500
October	251,800	May	217,200
November	203,200	June	248,100
December	161,000		
January	121,100	Total	2,523,300

The attendance of organizations, mainly classes of students, of which there is definite record, was 10,660, from 212 different schools or groups in 15 States and the District of Columbia. This large decrease from last year of visitors in this group was due mainly to restrictions on chartered bus travel which went into effect the first part of June, a month during which the largest number of schools or classes usually visit the Zoo. A complete listing by States follows:

State	Number of persons	Number of parties	State	Number of persons	Number of parties
Connecticut	179	4	North Carolina	281	8
Delaware	48	2	Ohio	28	1
District of Columbia	1,638	35	Pennsylvania	2,569	45
Maine	42	1	South Carolina	244	9
Maryland	1,375	31	Tennessee	35	1
Massachusetts	439	8	Virginia	1,333	33
Michigan	176	2	West Virginia	220	6
New Jersey	1,523	20			
New York	530	6	Total	10,660	212

As in preceding years, a census was made every afternoon at about 3 o'clock of the cars parked on the Zoo ground. During the year 56,585 cars were so listed, representing every State in the Union, as well as Alaska, Brazil, Canal Zone, Cuba, Guatemala, Haiti, Hawaii, Mexico, Puerto Rico, Panama, Philippine Islands, and Venezuela.

This count is not of value as showing a total attendance, but only as indicating the percentage of attendance by States. The record for the year shows that the District of Columbia automobiles comprised 39 percent, Maryland 22 percent, Virginia 15 percent, Pennsylvania 4 percent; and the remaining 20 percent were from other States, Territories, and countries.

The attendance at the Zoo reflects changed conditions incident to the war. Formerly there were relatively few visitors in the early days of the week and in the mornings, but now there is a pronounced increase during these periods, so that the highs and lows of attendance are less pronounced.

Owing to the large increase in Washington population, the local attendance at the Zoo has so increased that it offsets the decrease in the number of transient visitors brought about by the curtailment of automobile travel.

Large numbers of men in uniform are enjoying their first opportunity to visit a large zoo, and some groups of injured or sick are brought by nurses or Red Cross drivers. The Zoo continues to be a regular study ground for art and biology classes, as well as an important focal point for letters, telephone calls, and personal queries regarding animals, their behavior, and methods to be followed in preventing or remedying injuries from animals, how to care for animals, and many miscellaneous questions.

AIR-RAID PRECAUTIONS

So far as can be learned, the experience of other zoos in the war area suggests that the National Zoological Park will probably be one of the safest places about Washington during air raids. By the very nature of the construction of most of the cages, it is practically certain that any dangerous animal would be killed if it were in a cage damaged badly enough to let the animal escape.

The Zoo has endeavored to take precautions to provide for such contingencies as may arise. A number of key men have received instruction regarding incendiary bombs, gas bombs, and first aid, and the entire organization has been instructed and drilled in taking their respective posts during daylight tests and raids. The personnel has been divided into groups, so that in the event of attacks becoming imminent, the practice will be inaugurated of requiring some of the personnel to remain in the Zoo overnight, in order to be available in the event of emergency. This is with the idea of having trained men for emergencies at night, as well as during daytime.

ACCESSIONS

FIELD WORK

On account of world conditions, no expeditions were sent abroad; hence the Zoo did not receive the large numbers of animals that are usually brought in by such efforts.

GIFTS

Among important gifts during the year was a magnificent Texas longhorn steer from the ranch of Col. T. T. East, brought to Washington through the courtesy of the Texas and Southwestern Cattle Raisers Association. The animal was presented to the Zoo by the Texas State Society through the Honorable Wright Patman, and, as the first of its kind ever to be shown in the collection, it has attracted a great deal of attention.

A pet mule deer fawn was received from L. S. Marriott, Soda Springs, Idaho. Dr. Carlos G. Aguayo, of Habana, Cuba, presented a very rare Cuban crocodile (*Crocodylus rhombifer*), the first ever exhibited here. Otto Martin Locke, of New Braunfels, Tex., presented a large number of horned lizards and a nine-banded armadillo. From Kenly Chiles, of Washington, D. C., was received a guenon monkey.

Dr. Thomas Barbour, Director of the Museum of Comparative Zoology at Cambridge, Mass., presented two extra large and fine specimens of the African lungfish, which he had kept for observation since 1937.

DONORS AND THEIR GIFTS

Dr. Carlos G. Aguayo, Habana, Cuba, Cuban crocodile.
G. B. Arthur, Washington, D. C., common rabbit.
Clarence Attwood, Rockville, Md., duck hawk.
Baltimore & Ohio Freight Office, Washington, D. C., skunk.
Dr. T. Barbour, Cambridge, Mass., 2 African lungfish.
Carl Beale, Washington, D. C., gray fox.
Edgar Beckley, Washington, D. C., night hawk.
Mr. and Mrs. B. A. Bower, Mount Rainier, Md., 7 canaries.
D. Bresnahan, Washington, D. C., alligator.
R. A. Brown, Chevy Chase, Md., screech owl.
J. A. Bryant, Waverly, Va., otter.
Ruth Buchanan, Washington, D. C., grass paroquet.
Mrs. Frank R. Chase, Takoma Park, Md., Pekin duck.
Kenly Chiles, Washington, D. C., green guenon.
J. A. Clark, Silver Spring, Md., golden pheasant.
Marvin Cohen and Bill Wright, Washington, D. C., alligator.
Ralph E. Day, Washington, D. C., horned lizard.
Mrs. L. Diggs, Berwyn, Md., sparrow hawk.
Barney Dillard, Emporia, Fla., box tortoise.
Charles F. Dodge, Washington, D. C., sharp-shinned hawk.
William H. Dorsey, Arlington, Va., alligator.
Col. T. T. East, Hebbronville, Tex., Texas longhorn steer.
Col. H. E. Eastwood, Washington, D. C., common rabbit.
Hon. Clyde T. Ellis, Washington, D. C., opossum.
Alden Evans and George Clarke, Washington, D. C., copperhead.
Mrs. James L. Ewin, Washington, D. C., alligator.
Robert J. Feeney, Washington, D. C., ferret.
Dr. J. H. Ferguson, Washington, D. C., bald eagle.
Fish and Wildlife Service, Pawtuxent Research Refuge: through Ford Willkie, 2 barn owls; through F. C. Lincoln, Washington, D. C., hybrid duck; through F. T. Staunton, Moffit, N. Dak., 4 Hutchins geese, 1 white-fronted goose; through William C. Bunch, Edenton, N. C., great blue heron; through John N. Hamlet, Washington, D. C., 16 cotton rats, 2 southern pocket gophers, 7 round-tailed wood rats, 5 ord kangaroo rats, 4 collared lizards, 3 coachwhip snakes, 2 striped racerunners, whip-tailed lizard, 13 Holbrook's lizards.
Mrs. E. H. Fisher, Washington, D. C., zebra finch.
James B. Fox, Washington, D. C., goshawk.
Paul Fundenberg, Fort Lauderdale, Fla., marine turtle.
Kathleen Garvin, Chevy Chase, Md., box tortoise.
Mrs. J. F. Gates, Hyattsville, Md., 4 eastern weasels.
L. J. Gauthier, Washington, D. C., Pekin duck.
Mrs. Malcolm George, Silver Spring, Md., yellow-naped parrot.
Jane Gibbons, Washington, D. C., horned lizard.
A. F. Gibson, Washington, D. C., woodchuck or ground hog.
Richard Goetz, Waldorf, Md., 2 red-tailed hawks.
J. S. Goldsmith, Washington, D. C., 6 box tortoises, 2 painted turtles, pilot snake.
W. Bart Greenwood, Smithsonian Institution, Washington, D. C., 2 southern red-shouldered hawks, western diamond-back rattlesnake.
Mr. Greeson, Washington, D. C., 2 banded rattlesnakes.
Mrs. F. S. Haas, Kenwood, Md., goose.
Winifree Hall, Washington, D. C., night hawk.

E. W. Harkins, Washington, D. C., ring-necked pheasant.
M. Helberg, Arlington, Va., opossum.
L. A. Helms, Takoma Park, Md., rhesus monkey.
Henlopin Game Farms, Milton, Del., 2 ring-necked pheasants.
A. S. Henning, Washington, D. C., flying squirrel.
R. W. Henrich and B. F. Parris, Washington, D. C., red fox.
Fred Hill, Washington, D. C., skunk.
Russell Hill, Washington, D. C., great horned owl.
Ella Holmes, Washington, D. C., common rabbit.
D. F. Humphrey, Washington, D. C., blacksnake, 2 chicken snakes, 2 water snakes, garter snake.
R. F. Johnson, Washington, D. C., rhesus monkey.
Mrs. L. Jones, Washington, D. C., red, blue, and yellow macaw.
Mrs. W. A. Justice, Edgewater, Md., double yellow-head parrot.
Mrs. J. E. Keel, Washington, D. C., common marmoset.
Gail and Lynn Kerwin, Washington, D. C., 2 white rabbits.
M. King, Takoma Park, Md., opossum.
W. M. King, Washington, D. C., snapping turtle.
Mrs. B. Krasnick, Chevy Chase, Md., common boa, water snake, 2 fence lizards, 2 brown skinks, 5 glass snakes or legless lizards, 11 toads.
E. D. Lambert, Washington, D. C., woodchuck or ground hog.
Otto M. Locke, New Braunfels, Tex., 100 horned lizards, 9-banded armadillo.
A. Loveridge, Cambridge, Mass., 7 turtles.
Col. T. H. Lowe, Washington, D. C., barred owl.
Walter Lucas, Washington, D. C., gray fox.
W. Mansfield, Washington, D. C., common rabbit.
L. S. Marriott, Soda Springs, Idaho, mule deer.
R. S. Mathew, New York Aquarium, New York, N. Y., boa constrictor.
Mrs. E. Matteossian, Bethesda, Md., 4 flying squirrels.
Mr. May, Washington, D. C., chain or king snake.
Adam S. McAllister and Micah H. Naftalin, Washington, D. C., brown bat.
H. H. McClure, Washington, D. C., 2 false chameleons, box tortoise.
M. McClure, Washington, D. C., alligator.
Mrs. J. C. Meilsle, Washington, D. C., 4 grass paroquets.
F. C. Metcalfe, Washington, D. C., white-throated capuchin.
Metropolitan Police, Precinct No. 12, Washington, D. C., muscovy duck.
R. Miller, Washington, D. C., 9 opossums.
W. S. Morian, Washington, D. C., hog-nosed snake.
M. Moser, Washington, D. C., barred owl.
Mrs. J. Murphy, Washington, D. C., 2 grass paroquets.
Martha Nuland, Washington, D. C., alligator.
A. Parsell, Buena Vista, Va., banded rattlesnake.
Mrs. Peterson, Washington, D. C., small finch.
A. S. Polito, Washington, D. C., barn owl.
J. J. Porter, Davis, Okla., bald eagle.
L. Poston, Washington, D. C., soft-shelled turtle.
Mr. and Mrs. W. J. Preston, Baltimore, Md., 2 bishop weavers.
Bunny Reid, Washington, D. C., Pekin duck.
Nancy Reynolds, Washington, D. C., 2 Pekin ducks.
Mrs. R. H. Rhodes, Washington, D. C., opossum.
H. M. Rice, Germantown, Md., painted turtle.
J. L. Richardson, Richmond, Va., rhesus monkey.
Bertrand Robbins, Washington, D. C., chain or king snake.

Louis Ruhe, Inc., New York, N. Y., 2 collared finch-billed bulbuls.
Samuel Russell, Washington, D. C., 23 horned lizards.
Mrs. W. Rutledge, Washington, D. C., 2 Pekin ducks.
San Diego Zoo, San Diego, Calif., kinkajou, 3 ring-tail or cacomistle.
Walter Schmidt, Bethesda, Md., alligator.
Mrs. W. L. Schubert, Washington, D. C., common rabbit.
D. S. Scott, Washington, D. C., copperhead.
Col. Shalerladd, Chevy Chase, Md., alligator.
Mrs. Joseph Smith, Washington, D. C., grass paroquet.
Daisy Rice Spradling, Athens, Tenn., banded rattlesnake.
Corp. W. D. Sprouse, Vienna, Va., red fox.
James Stallings, Washington, D. C., alligator.
Mrs. S. Stanley, Greenacres, Md., Pekin duck.
Mr. Stone, Wardman Park Hotel, Washington, D. C., duck hawk.
W. W. Swaggart, Washington, D. C., canary.
Mrs. George Swanson, Mount Rainier, Md., 2 Pekin ducks, 3 Toulouse geese.
Bertha Sweet, Washington, D. C., 2 common rabbits.
Mrs. Thomas Terry, Witchville, Md., yellow-head parrot.
D. C. Thomas, Washington, D. C., black snake.
Ira B. Tice, Washington, D. C., Pekin ducks.
L. W. Turner, Washington, D. C., Pekin ducks.
T. Van Hyning, Gainesville, Fla., bald eagle.
Senator Frederick Van Nuys, Vienna, Va., rhesus monkey.
Mrs. Van Patten, Washington, D. C., Pekin duck.
A. W. Walker, Takoma Park, Md., opossum.
Ernest P. Walker, National Zoological Park, Washington, D. C., 2 picket pin ground squirrels, golden-breasted mouse, 3 True's white-footed mice, 2 grasshopper mice, Hopi chipmunk, golden-mantled ground squirrel, 2 5-toed kangaroo rats, 5 Uinta ground squirrels, 6 13-striped ground squirrels, 2 northern chipmunks, 10 plains toads, least weasel or ermine.
Miss V. Walston, Takoma Park, Md., red fox.
W. F. Ward, Washington, D. C., raccoon.
Mrs. J. M. Waters, Bethesda, Md., cottontail rabbit.
J. C. Watters, Atlanta, Ga., 2 raccoons.
J. M. Weedon, Washington, D. C., muscovy duck.
Fletcher Welch, Washington, D. C., Pekin duck.
F. C. Wells, Washington, D. C., barred owl.
Mrs. H. E. White, Washington, D. C., 2 box tortoises.
Mrs. H. A. Wood, Washington, D. C., Mexican parrot.
Walter Wuenschel, Washington, D. C., painted turtle.
Carlo Zeimet, Vienna, Va., peafowl.

BIRTHS

There were 65 mammals born, 40 birds hatched, and 2 reptiles born during the year.

MAMMALS

Scientific name	*Common name*	*Number*
Ammotragus lervia	Aoudad	4
Axis axis	Axis deer	3
Bibos gaurus	Gaur	1
Bison bison	American bison	3
Bos indicus	Zebu	1
Camelus bactrianus	Bactrian camel	1
Cephalophus nigrifrons	Black-fronted duiker	1
Cervus canadensis	Elk	1
Cervus elaphus	European red deer	2
Choloepus didactylus	Two-toed sloth	1
Cynomys ludovicianus	Prairie dog	12
Dama dama	Fallow deer	6
Dolichotis magellanica	Patagonian cavy	2
Felis onca	Jaguar	3
Hippopotamus amphibius	Hippopotamus	1
Lama glama	Llama	1
Macaca mulatta	Rhesus monkey	1
Macaca nemestrina	Pig-tailed macaque	2
Magus maurus	Moor monkey	1
Myocastor coypu	Nutria or coypu	8
Poephagus grunniens	Yak	1
Potos flavus	Kinkajou	1
Pseudois nahura	Bharal or blue sheep	2
Sciurus finlaysoni	Lesser white squirrel	2
Sika nippon	Japanese deer	1
Synceros caffer	African buffalo	1
Tapirus terrestris	South American tapir	1
Vulpes fulva	Red fox	1

BIRDS

Anas platyrhynchos	Mallard	12
Calopezus elegans	Crested tinamou	2
Limnocorax flavirostra	African black rail	10
Nycticorax nycticorax naevius	Black-crowned night heron	16

REPTILES

Zonurus giganteus	Spiny lizard	2

EXCHANGES

A splendid pair of British Park cattle was received in exchange from the Zoo at Toronto, Canada; and from W. A. King, at Brownsville, Tex., were received 6 Yucatan jays, 4 Mexican caciques, a pair of spider monkeys, 4 red-bellied squirrels, and a pair of West Highland or Kyloe cattle.

PURCHASES

Important specimens acquired by purchase were a secretary bird; a number of South African snakes, which were obtained from the Fitzsimons' Snake Farm, Durban, South Africa; 6 two-toed sloths; a pair of raccoon dogs; and a pair of East African wart hogs. Also purchased during the year were a pair of guanacos and a pair of single-humped camels. This provides specimens of all living forms of the camel family.

REMOVALS

Many of the poisonous reptiles have been removed from the Zoo, leaving so few in the collection that they can be instantly disposed of should the occasion require.

In the report for 1941, there was described a very serious loss of birds resulting from an epidemic of psittacosis in the bird house. The bird house was closed to the public for about 3 months, and at the beginning of this fiscal year the parrot room was still closed. A release from quarantine for the parrot section was received from the District of Columbia Health Department on September 27, 1941, and the room was reopened to visitors several days later.

Through splendid assistance and cooperation on the part of the United States Public Health Service and the District of Columbia Health Department this disease has been eradicated. Suspected birds that die are sent to the Public Health Service for examination, and for nearly a year the results of the examination have all been negative.

DEATHS

The principal losses for the past year have been of very old residents. A sulphur-crested cockatoo, which was presented by Richard and Harry Hunt, Bethesda, Md., April 19, 1890, before the present Zoo was actually established, died June 20, 1942, after 52 years and 2 months in the Zoo. It had been a pet of the Hunt family for 5 years before coming to the Park. It had come to the United States in a sailing ship around Cape Horn.

The female reticulated giraffe which had been received June 21, 1939, died April 24, 1942. Other losses by death of animals which also had been in the Zoo for long periods included an Alaska Peninsula bear in the collection 19 years; Baird's tapir, in the Zoo since May, 1924; and a Malay porcupine that had lived here for 22 years.

The American bald eagle, "Jerry," probably the most photographed bird in the world, died April 15, 1942. It had come as a gift from President Wilson and had been a Zoo resident for 26 years. Photographs of "Jerry" were used as models for the eagle on our defense posters.

As usual, all specimens of scientific value that died during the year were sent to the National Museum.

SPECIES NEW TO THE HISTORY OF THE COLLECTION

Very few exotic specimens were acquired during the year, and these were mainly replacements. The collection was augmented by the addition of three different types of cattle which had never been exhibited here before. They were a Texas longhorn steer, a pair of British Park cattle, and a pair of West Highland or Kyloe cattle.

How acquired	Mammals	Birds	Reptiles	Amphibians	Fishes	Total
Presented	80	80	86	14	2	262
Born or hatched	65	40	2			107
Received in exchange	10	23	9			42
Purchased	34	107	100		42	283
On deposit	18	7	8			33
Collected by National Zoological Park staff	28			10		38
Total	235	257	205	24	44	765

Summary

Animals on hand July 1, 1941	2,380
Accessions during the year	765
Total animals in collection during year	3,145
Removal from collection by death, exchange, and return of animals on deposit	734
In collection June 30, 1942	2,411

Status of collection

Class	Species	Individuals	Class	Species	Individuals
Mammals	229	704	Insects	1	25
Birds	332	945	Molluscs	1	1
Reptiles	110	530	Crustaceans	1	2
Amphibians	17	68			
Fishes	29	133	Total	722	2,411
Arachnids	2	3			

Respectfully submitted.

W. M. MANN, *Director.*

Dr. C. G. ABBOT,
Secretary, Smithsonian Institution.

APPENDIX 8

REPORT ON THE ASTROPHYSICAL OBSERVATORY

SIR: I have the honor to submit the following report on the activities of the Astrophysical Observatory for the fiscal year ended June 30, 1942:

WORK AT WASHINGTON

PUBLICATION OF VOLUME 6 OF THE ANNALS

The outstanding event was the completion and publication of volume 6 of the Annals of the Observatory. The volume begins with extracts from these reports continuing the annals of the Observatory operations from 1931 to 1940. Next, the principal research on the variation of the sun's radiation is minutely described, with illustrative graphical and tabular matter relating to every feature. Then follow 78 quarto tabular pages giving in detail daily results of observation of the solar constant of radiation (i. e., the intensity of the sun's rays as they exist at mean solar distance outside the earth's atmosphere). This table covers all observations over the interval from 1923 to 1939 at Montezuma, Chile; Table Mountain, Calif.; and Mount St. Katherine, Egypt. The results are given in 12 columns for each day, covering not only the final results at each station, but the more important observations leading up to them. For some individual dates as many as 12 lines are required. Each page of the Annals includes 3 such groups of columns or 36 in all, and each page has approximately 80 lines. The enormous task of preparing this table has been mentioned repeatedly in preceding reports.

Then follows a chapter on the derived results and conclusions based on this great tabular compilation, and including related additional information for the years 1920 to 1923, derived from volume 5 of the Annals.

As regards accuracy, the probable accidental error of a single day's determination of the solar constant from observations at the stations is one-sixth of 1 percent, and for 10-day and monthly means, it is one-ninth and one-twentieth of 1 percent, respectively.

The variation of the sun, as our life-supporting star, is clearly indicated and between extreme ranges up to about 3 percent for the interval 1920 to 1939. It is verified not only by comparisons of our

own radiation observations at widely separated stations but by comparison of them with the publications of visual and photographic studies of the sun's surface made at other observatories. Such comparisons show, for instance, that the rotation of the sun upon its axis in the approximate period of 27 days frequently is attended by 1 percent change in solar radiation associated with well-marked changes in the visual and photographic appearance of the sun.

The variation of the sun is shown not to be of uniform percentage for all colors and wave lengths, but to increase rapidly in percentage toward the shorter wave lengths of the violet and ultraviolet rays. For ultraviolet rays of wave length 3500 angstroms, the percentage variation is 6 times as great as for the solar radiation as a whole.

Fourteen simultaneously operative regular periodicities are found in solar radiation ranging from 8 months to 273 months in periods. Each of these is reflected in temperatures and precipitations recorded by meteorological observations of official weather services. Long records, extending for 140 years, like those of Copenhagen, Vienna, and New Haven, prove that the 14 solar periodic variations have continued in unchanged phases, though perhaps not in unchanged amplitudes, during all that interval. Assuming that the phases will continue unchanged, and the amplitudes will be the average of amplitudes since 1920, a prediction of the solar variation to 1945 is hazarded.

The publication of volume 6 of the Annals, in such beautiful form and at so early a date, was made possible by funds generously supplied by Mr. John A. Roebling. Without his long-continued and munificent support and advice, the research could not have reached this satisfactory fruition. It is greatly hoped that it will furnish valuable aids to the science of meteorology.

TRANSFER OF THE DIVISION OF RADIATION AND ORGANISMS

A second outstanding event of the year is the acceptance by the Bureau of the Budget and the Congress of the proposal, strongly recommended by the Regents of the Institution, that the Division of Radiation and Organisms, hitherto for 13 years supported by private funds, and hitherto concerned with the fundamental study of plant growth, be incorporated as a branch of the Astrophysical Observatory. Since the beginning of the fiscal year 1942, this interesting fundamental research has been supported by Congressional appropriations, and its staff has been a part of the Government Civil Service.

INSTRUMENTS

Our detailed studies of the observations of the solar radiation disclosed, as above said, that the percentage variation of the intensity of the sun's rays is six times as great for ultraviolet rays as for the

total of all wave lengths. It also appeared plainly that the chief source of error remaining in the determinations arises from uncertainty of the exact effect of absorption in the great infrared water-vapor bands, occurring in a spectral region where solar variation is almost nil.

These considerations led the Director to devise a method whereby with a few additional observations using special glass absorbing screens determinations of solar variation could be restricted to the spectral region of the green, blue, violet, and ultraviolet rays. Apparatus for such determinations was prepared at our Washington instrument shop and has been installed at all three of the field stations. It has been in regular use at all of them since about July 1941 in addition to the ordinary observing.

It also appeared that certain types of sky conditions tended to produce unsatisfactory results by our present usual methods of observing the solar constant of radiation. It seemed possible that if in addition to our usual measurements we should observe the degree of polarization prevailing in sky light a correction of value might be discovered and applied in our daily measurements. Accordingly three copies of a sky polarization device invented by the late Prof. E. C. Pickering have been prepared at our Washington instrument shop. One is already installed at Montezuma, Chile, and has been used regularly since March 1942. Such instruments will soon be in use at our other stations.

Considerable special confidential work for military purposes has been done at our Washington instrument shop under the care of the Director.

The Assistant Director, Mr. L. B. Aldrich, has devoted a good deal of time as a member of the Smithsonian War Committee.

FIELD WORK

Three solar radiation observing stations have been operated on all favorable days at Table Mountain, Calif., Burro Mountain, N. Mex. (called the Tyrone station), and at Montezuma, Chile. The meteorological conditions have been rather less favorable than usual at all three stations, but still solar-constant observations were made on a majority of days at all stations.

New reinforced concrete dwelling quarters for the director's famil yat Montezuma were completed under field director Freeman's direction and finished shortly before he was relieved by A. F. Moore in July 1941, and in May 1942 the assistant's quarters were rebuilt to a considerable extent.

Improvements were also made at Table Mountain and Tyrone stations. A new water supply was installed at the former, and the drainage of the observing tunnel was perfected at the latter.

PERSONNEL CHANGES

A. Kramer, instrument maker, retired, was restored to the active Civil Service at Washington under war regulations on March 16, 1942. A. F. Moore relieved H. B. Freeman, resigned, at Montezuma as field director in July 1941, and F. A. Greeley relieved James H. Baden as bolometric assistant there in April 1942. W. H. Hoover continued as field director at Tyrone station, relieving A. F. Moore. Thomas Hassard served from October 6, 1941, to April 16, 1942, as bolometric assistant at Table Mountain, relieving F. A. Greeley. On Hassard's resignation to enter military service, he was followed by Kenneth G. Bower in May 1942. Miss N. M. McCandlish, special assistant to the Director, resigned March 1942.

The following members of the staff of the Division of Radiation and Organisms were transferred to the staff of the Astrophysical Observatory on July 1, 1941, under authorization of the Civil Service Commission: Robert M. Clagett, Leland B. Clark, Earl S. Johnston, Edward D. McAlister, and Robert L. Weintraub.

Respectfully submitted.

C. G. Abbot, *Director.*

The Secretary,
Smithsonian Institution.

APPENDIX 9

REPORT ON THE DIVISION OF RADIATION AND ORGANISMS

SIR: I have the honor to submit the following report on the activities of the Division of Radiation and Organisms during the year ended June 30, 1942:

Many changes have taken place in both personnel and physical equipment of the Division of Radiation and Organisms during the past year. Members of the Division were given Civil Service status on July 1, 1941, and the work is now carried on from appropriations allotted to the Astrophysical Observatory. The laboratory has been remodeled and most of the rooms repainted. The removal of the pipe shop to the United States National Museum made available much needed space and has relieved the crowded condition that existed. These changes brought about considerable temporary disruption in the regular work.

Different members of the Division have contributed directly or indirectly to work pertaining to war activities. The regular research work may, for convenience, be placed under three group headings: Photosynthesis, plant growth and radiation, and development of apparatus and methods.

Dr. Jack E. Myers continued his work with algae on problems related to photosynthesis until the expiration of his National Research Fellowship grant in September. He devised a method for the contiuous culture of algae with equipment built in the Division's laboratory. This apparatus he took with him to continue the work at the University of Texas as a cooperative project with our Division. The bearing this work has on our general program is that of obtaining uniform biological material that will give reproducible results under similar experimental conditions.

Mrs. Florence Meier Chase completed her study on the economic uses of algae and submitted a paper covering the subject for publication in the Smithsonian Annual Report for 1941.

Dr. Weintraub has completed a comprehensive review of the literature on plant respiration as affected by radiation. This was requested by Botanical Review, a journal which specializes in the publication of comprehensive technical reviews in the botanical field. This review is especially useful as a background in some of our investigations.

Drs. Johnston and Weintraub have continued their experiments on the factors that influence the change in rates of respiration. This, of course, is basic work to our main project on photosynthesis. Our results lead one to speculate on the possibility of the existence of a carbon dioxide reservoir connected with the cell mechanism. It would seem that when the plants are conditioned in air of high carbon dioxide content a certain amount of excess carbon dioxide is stored in the tissue so that subsequent measurements of "apparent respiration" would consist of the carbon dioxide liberated by true respiration and that released from a well-filled reservoir. If, however, the plants are conditioned in air with little or no carbon dioxide the hypothetical reservoir is in a partially depleted condition and the first few periods of "apparent respiration" show a gradual increase in rate. This would be caused by the trapping in the reservoir of less and less of the respired carbon dioxide, thereby liberating more and more carbon dioxide which could be detected in the atmosphere surrounding the plant.

Such a reservoir hypothesis, however, is not sufficient to account for all the results obtained. There is evidence in much of our data that the humidity of the air plays an important role in this gaseous exchange, perhaps in changing the size of stomatal openings. Just what mechanism is involved in these plant responses is not yet clear. The answer must await improvements of the humidity controls of the apparatus. Such improvements are now being undertaken.

The relationship previously found by Dr. Weintraub between light intensity and inhibition of growth of the oats mesocotyl suggests that two growth proceses are influenced by light; one alone at low intensities and both together at higher intensities. It appears likely that these two processes are cell elongation and cell division, respectively. In order to determine the action spectra for the two processes, and so to obtain an insight into their mechanisms, information on the intensity relations in various spectral regions is required. Such information has previously been obtained for a number of wave bands at low intensities, using a double monochromator. In extending the study to higher intensities, this method is not feasible and use must be made of emission spectra furnishing lines of adequate intensity and purity. Such lines as are available are now being studied over a wide intensity range and the plant material is being preserved for future histological study.

The action spectrum (maximum activity in the red) found for the mesocotyl inhibition at low intensities indicates the presence in the etiolated plant of a photoreceptive pigment possessing a similar absorption spectrum. An attempt to isolate such a pigment has been begun. The evidence thus far obtained points to the occurrence in the dark-grown oats seedling of traces of at least two pigments having

absorption bands in the red region of the spectrum. Work on the isolation and separation of these pigments is now in progress.

In view of the previous finding by Drs. Johnston and Weintraub, using the spectrographic method, that illumination increases the rate of carbon dioxide production by etiolated barley seedlings, it is of considerable interest to study the influence of radiation on the respiration of other types of plants. For this purpose the Warburg manometric technique seems well adapted, since both oxygen absorption and carbon dioxide evolution can be measured simultaneously. The necessary apparatus is being assembled and preliminary experiments to find suitable types of plant material and appropriate cultural conditions are under way. The data in the literature as well as results already obtained in this laboratory indicate that the effects of radiation on respiration may be intimately related to the previous cultural history of the plant.

PERSONNEL

Dr. Jack E. Myers, whose National Research Fellowship grant terminated in September, has been appointed assistant professor in the department of zoology and physiology at the University of Texas.

Mrs. Florence Meier Chase, who has been with the Division for 10 years, resigned on September 9.

On October 1 the services of Dr. E. D. McAlister were transferred to the Carnegie Institution of Washington for the purpose of carrying on war work.

Leonard Price was appointed junior physical science aid on February 16, 1942.

Mrs. Phyllis W. Prescott was appointed junior clerk-stenographer on March 24, 1942.

PUBLICATIONS

JOHNSTON, EARL S. Demonstration of the effect of radiation on organisms at the Smithsonian Institution. Scientific Monthly, vol. 53 (July), pp. 92–96, 1941.

WEINTRAUB, ROBERT L., and MCALISTER, Edward D. Developmental physiology of the grass seedling. I. Inhibition of the mesocotyl of *Avena sativa* by continuous exposure to light of low intensity. Smithsonian Misc. Coll., vol. 101, No. 17, pp. 1–10, 1942.

Respectfully submitted.

EARL S. JOHNSTON, *Assistant Director.*

DR. C. G. ABBOT,
Secretary, Smithsonian Institution.

APPENDIX 10

REPORT ON THE LIBRARY

SIR: I have the honor to submit the following report on the activities of the Smithsonian Library for the fiscal year ended June 30, 1942:

War's initial impact upon the normal activities of a scientific library is disconcerting and disruptive. Publication of new material in the combatant countries declines, and such books and periodicals as are issued are obtainable with difficulty, if indeed they can be obtained at all. In the important scientific journals gaps appear and widen. As a consequence, service to readers becomes more limited. The whole immediate outlook for growth and accomplishment is discouraging.

Since September 1939 the Smithsonian Library has suffered in common with all other libraries of international scope, and as long as the war lasts it must continue to suffer from this negative influence which progressively decreases the inflow of material important for the work of the Institution and its branches. After Pearl Harbor came the final cutting off of all importations from enemy and occupied countries. The disruptive effect upon the normal activity of the library is graphically illustrated by the fact that during the fiscal year just ended 425 packages were received from abroad through the International Exchange Service, whereas in a recent pre-war year the number was 2,194.

Recovery from this serious crippling of the library's facilities will be slow, and the work of repair and of rebuilding will constitute a challenge to diligence and ingenuity during post-war years.

Fortunately, there is a positive, constructive, and much brighter side to the year's activities. Especially is this true of the library's relation to the war effort. The primary purpose of the library in normal times is service to the Institution's many specialists engaged in a wide range of studies covering the natural and physical sciences. A basic requirement for progress in any line of science is constant access to the published results of research in all countries. The large body of scientific literature accumulated in the years since the foundation of the Institution for the special needs of its staff has been found to provide valuable material of great importance to the various war agencies. As a result of this there has been a large increase in

the reference use of the library, especially in the branch library in the National Museum, including both personal visits and requests by telephone for information. This has also increased the loan to outside libraries, which were 218 more than last year.

In addition to providing access to published material and recorded information, the library has been able to extend its war reference service by putting inquirers directly in touch with members of the staff of the Institution having special professional or personal knowledge of various subjects. By knowing where, how, and from whom information not available in the Institution itself may be obtained, the library has also been enabled to arrange valuable introductions to outside sources. This kind of service, through which the library functions not only as a bibliographical center, but also as a general clearinghouse for information, is expanding and offers promising possibilities for more extensive future assistance in the war effort.

Upon recommendation of the Smithsonian War Committee and as a part of the Institution's program for directing its activities more definitely to the war effort, the library was instructed by the Secretary in April to prepare an index of the foreign geographical illustrations that have appeared in Smithsonian publications. Work was begun immediately, and before the end of the fiscal year the indexing of the Smithsonian Explorations and Field-Work series had been completed and work begun on other publications. Records of some 2,000 illustrations have been made and filed both alphabetically and by regions.

In spite of the time given to special war activities, routine duties of the library were well kept up. The acquisition of new material by purchase and exchange, the cataloging of books, the entering of periodicals, the preparation of volumes for binding, the keeping of loan-desk records, all are exact and time-consuming processes, upon which the smooth functioning of the library depends. Statistics of them, so far as they can be measured statistically, will be found at the end of this report.

Routine reference work for the staff of the Institution, and the use of books within the various libraries, of which no numerical count is attempted, continued to be heavy.

Although considerably handicapped by a temporarily curtailed staff, the decrease in the number of accessions from Europe and Asia has made it possible for the catalogers to devote some small part of their time to the recataloging of older material that has long needed attention. Full use of many of our most valuable series of publications has always been difficult because analysis of them has never been made for the catalog. Accurate identification of references and prompt delivery of material wanted are basic to good library service.

especially from the loan desk, and they are largely dependent upon good cataloging. It is hoped, as one of the compensations for the decrease in foreign accessions, to be able to continue and extend this program for making our already acquired resources more fully and easily usable.

In the matter of exchanges, a comparable program is in progress. With no immediate possibility of filling gaps in our files of foreign serials from sources abroad in direct exchange for our own publications, we are using, and are studying how to make further use of, our large and valuable duplicate collection for strengthening and extending our domestic exchanges. Lists of desiderata exchanged with other institutions are bringing good results in finding parts needed to complete incomplete serial files in all the participating libraries. Many of our duplicates, too, are given directly to other Government libraries that need them. Notably, in response to a request from the Scientific Library of the Patent Office, we were able this year to supply 1,524 parts of periodicals lacking in their sets.

GIFTS

Friends and patrons made generous gifts to the library. The Secretary, the Assistant Secretary, and other members and collaborators of the Smithsonian staff contributed many publications. The American Museum of Natural History, the Boston Museum of Fine Arts, and other institutions with which we are regularly in exchange made us special gifts in addition. From the American Association for the Advancement of Science came 724 publications, and 68 were received from the American Association of Museums. A noteworthy gift, numbering some 2,000 items, was the library on Copepoda assembled by the late Dr. Charles Branch Wilson and presented by his son, Carroll A. Wilson, to the Division of Marine Invertebrates. A card index for use with the collection accompanied it. Of special interest was Mrs. Cyrus Adler's gift of the posthumously published book, I Have Remembered the Days, the autobiography of the late Dr. Cyrus Adler, formerly librarian of the Institution. Other donors were, Percy S. Alden, Theodore Bolton, Willard C. Brinton, L. V. Coleman, Dr. P. T. Collinge, Miss Elsie G. Curry, Dr. Carl Epling, Mrs. Paul Garber, The Board of Directors of the Golden Gate Bridge and Highway District, Dr. John M. Hiss, R. G. Ingersoll Waite, Prof. James R. Jack, Dr. Thomas H. Kearney, Dr. Riley D. Moore, Dr. W. L. McAtee, The National Society of Colonial Dames of America, Dr. T. L. Northup, Mrs. Foster Stearns, Prof. Theodore Sizer.

PERSONNEL

Most important of the unusually large number of changes on the staff was the retirement of William L. Corbin as librarian on January 31, 1942, after more than 17 years of service. Coming to the Institution in the early years after the First World War, he was confronted with many difficult tasks of rehabilitation and administration. He gave his best efforts to the completion of important files of scientific journals broken by the war, to the reestablishment and extension of exchange relationships and to the building up of an efficient library personnel for the service of the Institution.

On February 2, 1942, Mrs. Leila F. Clark, who had been assistant librarian in charge of the National Museum library since 1929, was appointed librarian of the Institution.

Miss Elisabeth P. Hobbs, head cataloger, was promoted on May 21, 1942, to the position of associate librarian in charge of the Museum library. Mrs. Lucile Torrey Barrett, who had given exceptional service as librarian of the National Collection of Fine Arts, was transferred to a war agency on February 23, 1942. Other changes were the resignation of Miss Ruth Blanchard on October 31, 1941, and the appointments of Miss Marjorie Kunze and Miss Marion Blair on January 5, 1942. The temporary appointments of Mrs. Georgeanna H. Morrill and Mrs. Clara Dick, made during the preceding fiscal year, were terminated on December 31, 1941. Assistant messengers for short periods were Arthur Gambrell and John Barnes. Samuel Jones, who is now serving, was appointed May 5.

STATISTICS

The accessions to the libraries were as follows:

Accessions

	Volumes	Pamphlets	Total	Approximate holdings June 30, 1942
Astrophysical Observatory	172	71	243	10,399
Freer Gallery of Art	74	67	141	16,366
Langley Aeronautical	20	5	25	3,575
National Collection of Fine Arts	191	114	305	7,994
National Museum	2,503	1,024	3,527	223,287
National Zoological Park	12	13	25	3,941
Radiation and Organisms	9	1	10	606
Smithsonian Deposit, Library of Congress	892	423	1,315	569,977
Smithsonian Office	61	33	94	31,055
Total	3,934	1,751	5,685	[1] 867,200

[1] This figure does not include incomplete volumes of periodicals or separates and reprints from periodicals.

Exchanges

New exchanges arranged:	
For the Smithsonian Deposit	84
For the National Museum library	127
For other branch libraries	18
Total	229
"Wants" received:	
For the Smithsonian Deposit	1,132
For the National Museum library	2,286
For other branch libraries	622
Total	4,040
Letters written	1,581

Cataloging

Volumes and pamphlets cataloged	4,775
Cards filed in catalogs and shelflists	29,826

Other Activities

Periodicals entered	12,258
Loans of books and periodicals	9,978
Volumes sent to the bindery	1,400

Respectfully submitted.

LEILA F. CLARK, *Librarian.*

Dr. C. G. ABBOT,
Secretary, Smithsonian Institution.

APPENDIX 11

REPORT ON PUBLICATIONS

SIR: I have the honor to submit the following report on the publications of the Smithsonian Institution and the Government branches under its administrative charge during the year ended June 30, 1942:

The Institution published during the year 18 papers in the Smithsonian Miscellaneous Collections, and title page and table of contents of volumes 73 and 99 of this series; 2 papers in the War Background Studies series; 1 Annual Report and pamphlet copies of 23 articles in the Report appendix; and 3 special publications. Additional copies of two volumes of the Smithsonian's series of tables were also printed.

The United States National Museum issued 1 Annual Report; 36 Proceedings papers; 3 Bulletins and 1 part each of 3 Bulletins; 1 separate paper in the Bulletin series of Contributions from the United States National Herbarium.

The Bureau of American Ethnology issued 1 Annual Report and 3 Bulletins.

The Astrophysical Observatory issued volume 6 of the Annals of the Astrophysical Observatory.

Of the publications there were distributed 162,525 copies, which included 17 volumes and separates of the Smithsonian Contributions to Knowledge, 37,650 volumes and separates of the Smithsonian Miscellaneous Collections, 22,052 volumes and separates of the Smithsonian Annual Reports, 1,245 War Background Studies papers, 2,575 Smithsonian special publications, 82,545 volumes and separates of National Museum publications, 11,631 publications of the Bureau of American Ethnology, 6 publications of the National Collection of Fine Arts, 3 publications of the Freer Gallery of Art, 14 reports on the Harriman Alaska Expedition, 1,362 Annals of the Astrophysical Observatory, and 383 reports of the American Historical Association.

SMITHSONIAN MISCELLANEOUS COLLECTIONS

There were issued title page and table of contents of volumes 73 and 99, 3 papers of volume 99, 15 papers of volume 101, and reprints of volumes 86 and 88, as follows:

VOLUME 73

Title page and table of contents. (Publ. 3648.) December 16, 1941.

VOLUME 99

No. 8. Check-list of the terrestrial and fresh-water Isopoda of Oceania, by H. Gordon Jackson. 35 pp. (Publ. 3593.) July 23, 1941.

No. 22. The ice age problem, by Walter Knoche. 5 pp. (Publ. 3633.) July 30, 1941.

No. 23. Evidences of early occupation in Sandia Cave, New Mexico, and other sites in the Sandia-Manzano region, by Frank C. Hibben, with appendix on Correlation of the deposits of Sandia Cave, New Mexico, with the glacial chronology, by Kirk Bryan. vi+64 pp., 15 pls., 9 figs. (Publ. 3636.) October 15, 1941.

Title page and table of contents. (Publ. 3644.) November 13, 1941.

VOLUME 101

No. 2. A new salamander of the genus *Gyrinophilus* from the southern Appalachians, by M. B. Mittleman and Harry G. M. Jopson. 5 pp., 1 pl. (Publ. 3638.) July 14, 1941.

No. 3. Environment and native subsistence economies in the central Great Plains, by Waldo R. Wedel. 29 pp., 5 pls., 1 fig. (Publ.3639.) August 20, 1941.

No. 4. Diseases of and artifacts on skulls and bones from Kodiak Island, by Aleš Hrdlička. 14 pp., 11 pls. (Publ. 3640.) September 23, 1941.

No. 5. On solar-constant and atmospheric temperature changes, by Henryk Arctowski. vi+62 pp., 33 figs. (Publ. 3641.) November 7, 1941.

No. 6 Beetles of the genus *Hyperaspis* inhabitating the United States, by Th. Dobzhansky. 94 pp., 6 pls. (Publ. 3642.) December 31, 1941.

No. 7. Archeological remains in central Kansas and their possible bearing on the location of Quivira, by Waldo R. Wedel. 24 pp., 10 pls., 1 fig. (Publ. 3647.) January 15, 1942.

No. 8. Bees of the family Hylaeidae from the Ethiopian region, by T. D. A. Cockerell. 15 pp. (Publ. 3649.) February 19, 1942.

No. 9. Notes on some American fresh-water amphipod crustaceans and descriptions of a new genus and two new species, by Clarence R. Shoemaker. 31 pp., 12 figs. (Publ. 3675.) February 16, 1942.

No. 10. Faunal content of the Maryville formation, by Charles E. Resser. 8 pp. (Publ. 3676.) February 13, 1942.

No. 11. Amphipod crustaceans collected on the Presidential Cruise of 1938, by Clarence R. Shoemaker. 52 pp., 17 figs. (Publ. 3677.) March 5, 1942.

No. 12. The quantity of vaporous water in the atmosphere, by C. G. Abbot. 7 pp. (Publ. 3678.) March 23, 1942.

No. 13. A new titanothere from the Eocene of Mississippi, with notes on the correlation between the marine Eocene of the Gulf Coastal Plain and continental Eocene of the Rocky Mountain region, by C. L. Gazin and J. Magruder Sullivan. 13 pp., 3 pls., 1 fig. (Publ. 3679.) April 23, 1942.

No. 14. Two new fossil birds from the Oligicence of South Dakota, by Alexander Wetmore. 6 pp., 13 figs. (Publ. 3680.) May 11, 1942.

No. 15. Fifth contribution to nomenclature of Cambrian fossils, by Charles E. Resser. 58 pp. (Publ. 3682.) May 22, 1942.

No. 17. Developmental physiology of the grass seedling. I. Inhibition of the mesocotyl of *Avena sativa* by continuous exposure to light of low intensities, by Robert L. Weintraub and Edward D. McAlister. 10 pp., 1 pl., 4 figs. (Publ. 3685.) June 24, 1942.

Additional copies of the following two volumes were printed:

VOLUME 86

Smithsonian Meteorological Tables, Fifth Revised Edition, First Reprint. lxxxvi+282 pp. (Publ. 3116.)

VOLUME 88

Smithsonian Physical Tables, Eighth Revised Edition, First Reprint. liv+686 pp. (Publ. 3171.)

WAR BACKGROUND STUDIES

In the new series of Smithsonian publications, War Background Studies, the following papers were issued:

No. 1. Origin of the Far Eastern civilizations: a brief handbook, by Carl Whiting Bishop. 53 pp., 12 pls., 21 figs. (Publ. 3681.) June 10, 1942.

No. 2. The evolution of nations, by John R. Swanton. 23 pp. (Publ. 3686.) June 24, 1942.

SMITHSONIAN ANNUAL REPORTS

Report for 1940.—The complete volume of the Annual Report of the Board of Regents for 1940 was received from the Public Printer in October 1941.

Annual Report of the Board of Regents of the Smithsonian Institution showing the operations, expenditures, and condition of the Institution for the year ended June 30, 1940. xiii+512 pp., 107 pls., 28 figs. (Publ. 3606.)

The appendix contained the following papers:

Solar prominences in motion, by Robert R. McMath.
The satellites of Jupiter, by Seth B. Nicholson.
Cultural values of physics, by David Dietz.
Nuclear fission, by Karl K. Darrow.
The national standards of measurement, by Lyman J. Briggs.
The rise of the organic chemical industry in the United States, by C. M. A. Stine.
The rubber industry, 1839–1939, by W. A. Gibbons.
The future of man as an inhabitant of the earth, by Kirtley F. Mather.
The search for oil, by G. M. Lees.
Perspectives in evolution, by James Ritchie, M. A., D. Sc.
Animal behavior, by Ernest P. Walker.
The national wildlife refuge program of the Fish and Wildlife Service, by Ira N. Gabrielson.
A living fossil, by J. L. B. Smith.
Insects and the spread of plant diseases, by Walter Carter.
The Mexican bean beetle, by W. H. White.
Plant-tissue cultures, by Robert L. Weintraub.
The botany and history of *Zizania aquatica* L. ("wild rice"), by Charles E. Chambliss.

Prehistoric culture waves from Asia to America, by Diamond Jenness.
Masked medicine societies of the Iroquois, by William N. Fenton.
The beginnings of civilization in eastern Asia, by Carl Whiting Bishop.
Stonehenge: Today and yesterday, by Frank Stevens, O. B. E., F. S. A.
Sulfanilamide and related chemicals in the treatment of infectious diseases, by Wesley W. Spink, M. D.
The future of flying, by H. E. Wimperis, C. B., C. B. E., Hon. D. Eng. (Melb.), Past President Royal Aeronautical Society.

Report for 1941.—The Report of the Secretary, which included the financial report of the executive committee of the Board of Regents, and which will form part of the Annual Report of the Board of Regents to Congress, was issued in January 1941.

Report of the Secretary of the Smithsonian Institution and financial report of the executive committee of the Board of Regents for the year ended June 30, 1940. ix+136 pp., 5 pls., 2 figs. (Publ. 3643.)

The Report volume, containing the general appendix, was in press at the close of the year.

SPECIAL PUBLICATIONS

Handbook of the National Aircraft Collection, Fifth Edition, by Paul E. Garber. 43 pp., 26 pls., 1 fig. (Publ. 3635.) July 23, 1941.

Classified list of Smithsonian publications available for distribution December 1, 1941, compiled by Helen Munroe. 42 pp. (Publ. 3645.) December 11, 1941.

Brief guide to the Smithsonian Institution, Fifth Edition. 80 pp., 53 ills. (Publ. BL.) May 1942.

PUBLICATIONS OF THE UNITED STATES NATIONAL MUSEUM

The editorial work of the National Museum has continued during the year under the immediate direction of the editor, Paul H. Oehser. There were issued 1 Annual Report, 36 Proceedings papers, 6 Bulletins, and 1 separate paper in the Bulletin series of Contributions from the United States National Herbarium, as follows:

MUSEUM REPORT

Report on the progress and condition of the United States National Museum for the fiscal year ended June 30, 1941. iii+118 pp. January 1942.

PROCEEDINGS: VOLUME 87

Title page, table of contents, and index. Pp. i–viii, 635–672. September 16, 1941.

VOLUME 90

No. 3107. Revision of the North American moths of the family Oecophoridae, with descriptions of new genera and species, by J. F. Gates Clarke. Pp. 33–286, pls. 1–48. November 6, 1941.

No. 3109. A history of the division of vertebrate paleontology in the United States National Museum, by C. W. Gilmore. Pp. 305–377, pls. 49–53. August 5, 1941.

No. 3110. A new harpacticoid copepod from the gill chambers of a marsh crab, by Arthur G. Humes. Pp. 379–385, fig. 18. August 5, 1941.

No. 3112. Cestode parasites of teleost fishes of the Woods Hole region, Massachusetts, by Edwin Linton. Pp. 417–442, pls. 60–62. July 15, 1941.

No. 3113. Pamlico fossil echinoids, by Willard Berry. Pp. 443–445, pls. 63–65. July 5, 1941.

No. 3115. Notes on Mexican turtles of the genus *Kinosternon*, by Leonhard Stejneger. Pp. 457–459. July 25, 1941.

No. 3116. A revision of the chalcid-flies of the genus *Monodontomerus* in the United States National Museum, by A. B. Gahan. Pp. 461–482. August 19, 1941.

No. 3117. Notes on the birds of North Carolina, by Alexander Wetmore. Pp. 483–530. October 31, 1941.

No. 3118. Notes on some North and Middle American danaid butterflies, by Austin H. Clark. Pp. 531–542, pls. 71–74. November 4, 1941.

No. 3119. A new genus of psammocharid wasp from China, by P. P. Babiy. Pp. 543–546, fig. 23. October 24, 1941.

No. 3120. Two new species of Cecidomyiid flies from *Phlox*, by Charles T. Greene. Pp. 547–551, fig. 24. October 30, 1941.

VOLUME 91

No. 3121. The mammalian faunas of the Paleocene of central Utah, with notes on the geology, by C. Lewis Gazin. Pp. 1–53, figs. 1–29, pls. 1–3. October 2, 1941.

No. 3122. A new fossil crocodilian from Colombia, by Charles C. Mook. Pp. 55–58, pls. 4–9. January 17, 1942.

No. 3123. The North American moths of the genus *Arachnis*, with one new species, by J. F. Gates Clarke. Pp. 59–70, pls. 10–12. November 14, 1941.

No. 3124. Some little-known fossil lizards from the Oligocene of Wyoming, by Charles W. Gilmore. Pp. 71–76, figs. 30–32. November 13, 1941.

No. 3125. New species of hydroids, mostly from the Atlantic Ocean, in the United States National Museum, by C. McLean Fraser. Pp. 77–89, pls. 13–18. November 14, 1941.

No. 3126. The Nevada early Ordovician (Pogonip) sponge fauna, by R. S. Bassler. Pp. 91–102, pls. 19–24. November 1, 1941.

No. 3127. The Mexican subspecies of the snake *Coniophanes fissidens*, by Hobart M. Smith. Pp. 103–111, fig. 33. November 13, 1941.

No. 3128. Report on the Smithsonian-Firestone expedition's collection of reptiles and amphibians from Liberia, by Arthur Loveridge. Pp. 113–140, fig. 34. November 14, 1941.

No. 3129. Notes on some crayfishes from Alabama caves, with the description of a new species and a new subspecies, by Rendell Rhoades. Pp. 141–148, figs. 35, 36. November 6, 1941.

No. 3130. Notes on the snake genus *Trimorphodon*, by Hobart M. Smith. Pp. 149–168, figs. 37, 38. November 10, 1941.

VOLUME 92

No. 3133. Notes on two genera of American flies of the family Trypetidae, by John R. Malloch. Pp. 1–20. fig. 1. January 7, 1942.

No. 3134. The Freda, N. Dak., meteorite: A nickel-rich ataxite, by E. P. Henderson and Stuart H. Perry. Pp. 21–23, pls. 1–4. March 23, 1942.

No. 3135. Some cestodes from Florida sharks, by Asa C. Chandler. Pp. 25–31, figs. 2, 3. February 9, 1942.

No. 3136. A new species of phyllopod crustacean from the southwestern short-grass prairies, by J. G. Mackin. Pp. 33–39, figs. 4–6. April 15, 1942.

No. 3137. Descriptions of five new species of Chalcidoidea, with notes on a few described species (Hymenoptera), by A. B. Gahan. Pp. 41–51. March 4, 1942.

No. 3138. A new stomatopod crustacean from the west coast of Mexico, by Steve A. Glassell. Pp. 53–56, fig. 7. March 26, 1942.

No. 3139. The chrysomelid beetles *Luperodes bivittatus* (LeConte) and *varicornis* (LeConte) and some allied species, by Doris H. Blake. Pp. 57–74, pls. 5, 6. April 7, 1942.

No. 3140. Notes on the classification of the staphylinid beetles of the groups Lispini and Osoriinae, by Richard E. Blackwelder. Pp. 75–90. April 7, 1942.

No. 3141. Scored bone artifacts of the central Great Plains, by W. R. Wedel and A. T. Hill. Pp. 91–100, pls. 7–13. April 28, 1942.

No. 3142. The identity of some marine annelid worms in the United States National Museum, by Olga Hartman. Pp. 101–140, figs. 8–15. June 10, 1942.

No. 3143. The Sardis (Georgia) meteorite, by E. P. Henderson and C. Wythe Cooke. Pp. 141–150, pls. 14, 15. April 30, 1942.

No. 3144. *Rhopocrinus*, a new fossil inadunate crinoid genus, by Edwin Kirk. Pp. 151–155, pl. 16. April 24, 1942.

No. 3145. Notes on beetles related to *Phyllophaga* Harris, with descriptions of new genera and subgenera, by Lawrence W. Saylor. Pp. 157–165, pl. 17. June 11, 1942.

No. 3146. Descriptions of the larvae of some West Indian melolonthine beetles and a key to the known larvae of the tribe, by Adam G. Böving. Pp. 167–176, pls. 18, 19. June 13, 1942.

BULLETINS

No. 50, part 9. The birds of North and Middle America. Families Gruidae, Rallidae, Heliornithidae, and Eurypygidae, by Robert Ridgway and Herbert Friedmann. ix+254 pp., 16 figs. October 2, 1941.

No. 82, volume 1, part 4a. A monograph of the existing crinoids. The superfamily Mariametrida (except the family Colobometridae), by Austin H. Clark, vii+603 pp., 61 pls. August 5, 1941.

No. 161, part 3. The Foraminifera of the tropical Pacific collections of the "Albatross," 1899–1900. Heterohelicidae and Buliminidae, by Joseph Augustine Cushman. x+67 pp., 15 pls. February 10, 1941.

No. 177. The herpetology of Hispaniola, by Doris M. Cochran. vii+398 pp., 12 pls. July 8, 1941.

No. 178. Catalog of the type specimens of mammals in the United States National Museum, including the Biological Surveys collection, by Arthur J. Poole and Viola S. Schantz. xiii+705 pp. April 8, 1942.

No. 179. Life histories of North American flycatchers, larks, swallows, and their allies, by Arthur Cleveland Bent. xi+555 pp., 70 pls. May 8, 1942.

CONTRIBUTIONS FROM THE U. S. NATIONAL HERBARIUM: VOLUME 28

Part 4. Plants collected by R. C. Ching in southern Mongolia and Kansu Province, China, by E. H. Walker. xiii+675 pp., pls. 21–27. July 22, 1941.

PUBLICATIONS OF THE BUREAU OF AMERICAN ETHNOLOGY

The editorial work of the Bureau has continued under the immediate direction of the editor, M. Helen Palmer. During the year there were issued 1 Annual Report and 3 Bulletins, as follows:

REPORT

Fifty-eighth annual report of the Bureau of American Ethnology, 1940–1941. 13 pp. February 11, 1942.

BULLETINS

129. An archeological survey of Pickwick Basin in the adjacent portions of the States of Alabama, Mississippi, and Tennessee, by William S. Webb and David L. DeJarnette. With additions by Walter B. Jones, J. P. E. Morrison, Marshall T. Newman and Charles E. Snow, and William G. Haag. 536 pp., 316 pls., 99 figs. March 23, 1942.

130. Archeological investigations at Buena Vista Lake, Kern County, California, by Waldo R. Wedel. With appendix, Skeletal remains from the Buena Vista sites, California, by T. D. Stewart. 194 pp., 57 pls., 19 figs. July 14, 1941.

131. Peachtree Mound and village site, Cherokee County, North Carolina, by Frank M. Setzler and Jesse D. Jennings. With appendix, Skeletal remains from the Peachtree Site, North Carolina, by T. D. Stewart. 103 pp., 50 pls., 12 figs. October 9, 1941.

PUBLICATIONS OF THE ASTROPHYSICAL OBSERVATORY

With funds supplied by John A. Roebling, the Astrophysical Observatory was able to publish volume 6 of the Annals.

Annals of the Astrophysical Observatory of the Smithsonian Institution, Volume 6, by C. G. Abbot, L. B. Aldrich, and W. H. Hoover. viii+207 pp., 7 pls., 18 figs. (Publ. 3650.) April 24, 1942.

REPORT OF THE AMERICAN HISTORICAL ASSOCIATION

The annual reports of the American Historical Association are transmitted by the Association to the Secretary of the Smithsonian Institution and are communicated by him to Congress, as provided by the act of incorporation of the Association. The report for 1939 (Proceedings) was issued in October 1941. The following were in press at the close of the year: Report for 1936, volume 3 ("Instructions of the British Foreign Secretaries to their envoys in the United States, 1791–1812"); report for 1937, volume 2 (Writings in American History, 1937, 1938); report for 1939, volume 1 (Proceedings); report for 1940; and report for 1941, volume 1, and volume 2 (Talleyrand in America as a financial promoter, 1794–96).

REPORT OF THE NATIONAL SOCIETY, DAUGHTERS OF THE AMERICAN REVOLUTION

The manuscript of the Forty-fourth Annual Report of the National Society, Daughters of the American Revolution, was transmitted to Congress, in accordance with law, November 26, 1941.

ALLOTMENTS FOR PRINTING

The congressional allotments for the printing of the Smithsonian Annual Reports to Congress and the various publications of the Government bureaus under the administration of the Institution were virtually used up at the close of the year. The appropriation for the coming year ending June 30, 1943, totals $88,500, allotted as follows:

Smithsonian Institution	$16,000
National Museum	43,000
Bureau of American Ethnology	17,480
National Collection of Fine Arts	500
International Exchanges	200
National Zoological Park	200
Astrophysical Observatory	500
American Historical Association	10,620
Total	88,500

Respectfully submitted.

W. P. True, *Chief, Editorial Division.*

Dr. C. G. Abbot,
Secretary, Smithsonian Institution.

REPORT OF THE EXECUTIVE COMMITTEE OF THE BOARD OF REGENTS OF THE SMITHSONIAN INSTITUTION

FOR THE YEAR ENDED JUNE 30, 1942

To the Board of Regents of the Smithsonian Institution:

Your executive committee respectfully submits the following report in relation to the funds of the Smithsonian Institution, together with a statement of the appropriations by Congress for the Government bureaus in the administrative charge of the Institution.

SMITHSONIAN ENDOWMENT FUND

The original bequest of James Smithson was £104,960 8s. 6d.—$508,318.46. Refunds of money expended in prosecution of the claim, freights, insurance, etc., together with payment into the fund of the sum of £5,015, which had been withheld during the lifetime of Madame de la Batut, brought the fund to the amount of $550,000.

Since the original bequest the Institution has received gifts from various sources chiefly in the years prior to 1893, the income from which may be used for the general work of the Institution.

To these gifts has been added capital from savings on income, gain from sale of securities, etc., and they now stand on the books of the Institution as follows:

Avery, Robert S. and Lydia T., bequest fund	$51,044.98
Endowment fund, from gifts, income, etc	263,748.57
Habel, Dr. S., bequest fund	500.00
Hachenberg, George P. and Caroline, bequest fund	4,001.06
Hamilton, James, bequest fund	2,901.61
Henry, Caroline, bequest fund	1,203.20
Hodgkins, Thomas G., fund	146,067.43
Parent fund	728,854.50
Rhees, William Jones, bequest fund	1,060.64
Sanford, George H., memorial fund	1,985.61
Witherspoon, Thomas A., memorial fund	128,385.77
Special fund	1,400.00
Total endowment for general work of the Institution	1,331,153.37

The Institution holds also a number of endowment gifts, the income of each being restricted to specific use. These are invested and stand on the books of the Institution as follows:

Abbott, William L., fund, bequest to the Institution	$103,157.88
Arthur, James, fund, income for investigations and study of the sun and lecture on the sun	39,787.45

Bacon, Virginia Purdy, fund, for a traveling scholarship to investigate fauna of countries other than the United States	$49,842.89
Baird, Lucy H., fund, for creating a memorial to Secretary Baird	17,538.76
Barstow, Frederic D., fund, for purchase of animals for the Zoological Park	756.76
Canfield Collection fund, for increase and care of the Canfield collection of minerals	38,050.18
Casey, Thomas L., fund, for maintenance of the Casey collection and promotion of researches relating to Coleoptera	9,124.91
Chamberlain, Francis Lea, fund, for increase and promotion of Isaac Lea collection of gems and mollusks	28,015.52
Hillyer, Virgil, fund, for increase and care of Virgil Hillyer collection of lighting objects	6,538.40
Hitchcock, Dr. Albert S., Library fund, for care of Hitchcock Agrostological Library	1,413.20
Hodgkins fund, specific, for increase and diffusion of more exact knowledge in regard to nature and properties of atmospheric air	100,000.00
Hughes, Bruce, fund, to found Hughes alcove	19,042.76
Myer, Catherine Walden, fund, for purchase of first-class works of art for the use of, and benefit of, the National Collection of Fine Arts	18,853.45
National Collection of Fine Arts, Strong Bequest	9,946.50
Pell, Cornelia Livingston, fund, for maintenance of Alfred Duane Pell collection	7,374.38
Poore, Lucy T. and George W., fund, for general use of the Institution when principal amounts to the sum of $250,000	84,382.57
Reid, Addison T., fund, for founding chair in biology in memory of Asher Tunis	29,977.61
Roebling fund, for care, improvement, and increase of Roebling collection of minerals	120,067.00
Rollins, Miriam and William, fund, for investigations in physics and chemistry	89,495.28
Smithsonian employees retirement fund	20,893.67
Springer, Frank, fund, for care, etc., of Springer collection and library	17,840.52
Walcott, Charles D. and Mary Vaux, research fund, for development of geological and paleontological studies and publishing results thereof	354,214.88
Younger, Helen Walcott, fund, held in trust	50,112.50
Zerbee, Frances Brinckle, fund, for endowment of aquaria	757.15
Special research fund, gift, in the form of real estate	20,946.00
Total endowment for specific purposes other than Freer endowment	1,238,135.22

The above funds amount to a total of $2,569,288.59, and are carried in the following investment accounts of the Institution:

U. S. Treasury deposit account, drawing 6 percent interest	$1,000,000.00
Consolidated investment fund (income in table below)	1,270,968.45
Real estate, mortgages, etc	246,807.64
Special funds, miscellaneous investments	51,512.50
	2,569,288.59

CONSOLIDATED FUND

Statement of principal and income for the last 10 years

Fiscal year	Capital	Income	Percentage	Fiscal year	Capital	Income	Percentage
1933	$764,077.67	$28,185.11	3.68	1938	$867,528.50	$34,679.64	4.00
1934	754,570.84	26,650.32	3.66	1939	902,801.27	30,710.53	3.40
1935	706,765.68	26,808.86	3.79	1940	1,081,249.25	38,673.29	3.47
1936	723,795.46	26,836.61	3.71	1941	1,093,301.51	41,167.38	3.76
1937	738,858.54	33,819.43	4.57	1942	1,270,968.45	46,701.98	3.67

FREER GALLERY OF ART FUND

Early in 1906, by deed of gift, Charles L. Freer, of Detroit, gave to the Institution his collection of Chinese and other Oriental objects of art, as well as paintings, etchings, and other works of art by Whistler, Thayer, Dewing, and other artists. Later he also gave funds for the construction of a building to house the collection, and finally in his will, probated November 6, 1919, he provided stock and securities to the estimated value of $1,958,591.42 as an endowment fund for the operation of the gallery. From the above date to the present time these funds have been increased by stock dividends, savings of income, etc., to a total of $5,912,878.64. In view of the importance and special nature of the gift and the requirements of the testator in respect to it, all Freer funds are kept separate from the other funds of the Institution, and the accounting in respect to them is stated separately.

The invested funds of the Freer bequest are classified as follows:

Court and grounds fund	$662,390.04
Court and grounds maintenance fund	166,361.00
Curator fund	674,088.94
Residuary legacy	4,410,038.66
Total	5,912,878.64

SUMMARY

Invested endowment for general purposes	$1,331,153.37
Invested endowment for specific purposes other than Freer endowment	1,238,135.22
Total invested endowment other than Freer endowment	2,569,288.59
Freer invested endowment for specific purposes	5,912,878.64
Total invested endowment for all purposes	8,482,167.23

CLASSIFICATION OF INVESTMENTS

Deposited in the U. S. Treasury at 6 percent per annum, as authorized in the United States Revised Statutes, sec. 5591		$1,000,000.00
Investments other than Freer endowment (cost or market value at date acquired):		
Bonds (24 different groups)	$474,228.77	
Stocks (52 different groups)	906,138.35	
Real estate and first-mortgage notes	182,762.64	
Uninvested capital	6,158.83	
		1,569,288.59
Total investments other than Freer endowment		2,569,288.59
Investments of Freer endowment (cost or market value at date acquired):		
Bonds (43 different groups)	$2,334,095.23	
Stocks (69 different groups)	3,469,025.55	
Real estate first-mortgage notes	8,000.00	
Uninvested capital	101,757.86	
		5,912,878.64
Total investments		8,482,167.23

CASH BALANCES, RECEIPTS, AND DISBURSEMENTS DURING THE FISCAL YEAR[1]

Cash balance on hand June 30, 1941		$497,141.14
Receipts:		
Cash income from various sources for general work of the Institution	$79,215.92	
Cash gifts and contributions expendable for special scientific objects (not to be invested)	38,100.00	
Cash gifts for special scientific work (to be invested)	28,073.85	
Cash income from endowments for specific use other than Freer endowment and from miscellaneous sources (including refund of temporary advances)	130,995.54	
Cash received as royalties from Smithsonian Scientific Series	18,173.47	
Cash capital from sale, call of securities, etc. (to be reinvested)	95,795.28	
Total receipts other than Freer endowment		390,354.06
Cash income from Freer endowment	$241,557.77	
Cash capital from sale, call of securities, etc. (to be reinvested)	899,670.48	
Total receipts from Freer endowment		1,141,228.25
Total		2,028,723.45

[1] This statement does not include Government appropriations under the administrative charge of the Institution.

Disbursements:		
From funds for general work of the Institution:		
Buildings—care, repairs, and alterations	$3,429.92	
Furniture and fixtures	509.63	
General administration [2]	30,215.61	
Library	1,346.62	
Publications (comprising preparation, printing, and distribution)	19,607.00	
Researches and explorations	6,444.42	
		$61,553.20
From funds for specific use, other than Freer Endowment:		
Investments made from gifts, from gain from sale, etc., of securities and from savings on income	65,478.47	
Other expenditures, consisting largely of research work, travel, increase and care of special collections, etc., from income of endowment funds, and from cash gifts for specific use (including temporary advances)	91,931.25	
Reinvestment of cash capital from sale, call of securities, etc	89,677.17	
Cost of handling securities, fee of investment counsel, and accrued interest on bonds purchased	2,394.50	
		249,481.39
From Freer Endowment:		
Operating expenses of the gallery, salaries, field expenses, etc	45,606.72	
Purchase of art objects	110,880.43	
Investments made from gain from sale, etc., of securities	11,246.70	
Reinvestment of cash capital from sale, call of securities, etc	790,392.39	
Cost of handling securities, fee of investment counsel, and accrued interest on bonds purchased	18,738.89	
		976,865.13
Cash balance June 30, 1942		740,823.73
Total		2,028,723.45

[2] This includes salary of the Secretary and certain others.

Included in the foregoing are expenditures for researches in pure science, publications, explorations, care, increase, and study of collections, etc., as follows:

Expenditures from general funds of the Institution:		
Publications	$19,607.00	
Researches and explorations	6,444.42	
		$26,051.42

Expenditures from funds devoted to specific purposes:		
Researches and explorations	$42,855.38	
Care, increase, and study of special collections	3,253.26	
Publications	4,950.98	
		$51,059.62
Total		77,111.04

The practice of depositing on time in local trust companies and banks such revenues as may be spared temporarily has been continued during the past year, and interest on these deposits has amounted to $263.06.

The Institution gratefully acknowledges gifts or bequests from the following:

Research Corporation, further contributions for research in radiation.
John A. Roebling, further contributions for research in radiation.
Mary Vaux Walcott, bequest to augment the Charles D. and Mary Vaux Walcott research fund.

All payments are made by check, signed by the Secretary of the Institution on the Treasurer of the United States, and all revenues are deposited to the credit of the same account. In many instances deposits are placed in bank for convenience of collection and later are withdrawn in round amounts and deposited in the Treasury.

The foregoing report relates only to the private funds of the Institution.

The following annual appropriations were made by Congress for the Government bureaus under the administrative charge of the Smithsonian Institution for the fiscal year 1942:

General Expenses (including supplemental appropriation under the Ramspeck Act)	$390,404
(This combines under one heading the appropriations heretofore made for Salaries and Expenses, International Exchanges, American Ethnology, Astrophysical Observatory, and National Collection of Fine Arts of the Smithsonian Institution, and for Maintenance and Operation of the United States National Museum.)	
Preservation of Collections (including supplemental appropriation under the Ramspeck Act)	636,118
Printing and binding	88,500
National Zoological Park	239,260
Cooperation with the American Republics (transfer to the Smithsonian Institution)	56,500
Total	1,410,782

The report of the audit of the Smithsonian private funds is given below:

SEPTEMBER 8, 1942.

EXECUTIVE COMMITTEE, BOARD OF REGENTS,
Smithsonian Institution, Washington, D. C.

SIRS: Pursuant to agreement we have audited the accounts of the Smithsonian Institution for the fiscal year ended June 30, 1942, and certify the balance of cash on hand, including Petty Cash Fund, June 30, 1942, to be $742,723.73.

We have verified the record of receipts and disbursements maintained by the Institution and the agreement of the book balances with the bank balances.

We have examined all the securities in the custody of the Institution and in the custody of the banks and found them to agree with the book records.

We have compared the stated income of such securities with the receipts of record and found them in agreement therewith.

We have examined all vouchers covering disbursements for account of the Institution during the fiscal year ended June 30, 1942, together with the authority therefor, and have compared them with the Institution's record of expenditures and found them to agree.

We have examined and verified the accounts of the Institution with each trust fund.

We found the books of account and records well and accurately kept and the securities conveniently filed and securely cared for.

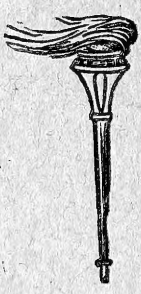
All information requested by your auditors was promptly and courteously furnished.

We certify the Balance Sheet, in our opinion, correctly presents the financial condition of the Institution as at June 30, 1942.

Respectfully submitted.

WILLIAM L. YAEGER,
Certified Public Accountant.

Respectfully submitted.

FREDERIC A. DELANO,
VANNEVAR BUSH,
CLARENCE CANNON,
Executive Committee.

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